

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor : Leroy Braun	
Appln. No. : 10/685,240	
Filing Date. : October 14, 2003	Group Art Unit: 2856
Title : MULTIMEDIA FEATURE FOR DIAGNOSTIC INSTRUMENTATION	Examiner: J. Chapman
Docket No. : M33.12-0024	

DECLARATION OF THERESA Y. SCHULZ UNDER 37 C.F.R. 1.132

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I, Theresa Y. Schulz, state:

- 1 I am have 22 years of experience as a hearing conservation audiologist.
- 2 I have a Masters Degree in Audiology and a Doctorate in Hearing Science. I am currently the President-Elect, Past Vice President and Committee Chair of the National Hearing Conservation Association. I am a Past President of the Military Audiology Association and a Past Chair of the Council for Accreditation in Occupational Hearing Conservation (the national certifying body for occupational hearing conservationists). I am a retired Lieutenant Colonel in the United States Air Force, and served as a consultant to all Air Force Major Commands, the Secretary of the Air Force and the Department of Defense concerning joint service hearing conservation programs. I have authored and co-authored numerous publications and presented numerous abstracts and lectures relating to hearing conservation. A copy of my curriculum vitae is attached as Appendix A.
- 3 I am currently an independent consultant in hearing loss prevention.
- 4 I have reviewed claims 6-21 of U.S. Application No. 10/685,240 (attached as Appendix B).

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5. Based on my review, claims 6-21 of U.S. Application No. 10/685,210 are directed to an audiometer system having an output that is automatically switched from test tones, to instructions represented by sound waves produced by a computer in response to a detected error in responses to the test tones, and back to test tones after the instructions have been provided, under computer control without human intervention.
6. The continuation of a hearing test without human intervention is a critical feature. For example, when multiple tests are being conducted, errors from more than one listener may occur simultaneously, which in the absence of this feature would require a test administrator to attend to one listener at a time. Even if the listener is notified of an error, in systems that are not designed to automatically resume testing, the administrator must reinstruct the listener and then restart the test manually to continue.
7. I was involved with the procurement of approximately 2000 microprocessor audiometers at approximately 600 sites for the United States Department of Defense under Solicitation DADA 15-96-R-0031, a process which was completed in 1998. A copy of Solicitation DADA 15-96-R-0031 is provided in Appendix C. I served in the role of one of the functional representatives in this process. Functional representatives facilitate the coordination and implementation of Hearing Conservation Program business practice issues from the DoD Hearing Conservation Working Group and the users in the field. Representatives from each service are responsible for providing requirements and feedback at every stage of development, procurement, implementation, maintenance and improvement of Defense Occupational Health Readiness Systems in Hearing Conservation (DOHRS-HC) and the DOHRS Data Repository. This includes identifying and providing information on DOHRS-HC sites and customer feedback; prioritizing and updating user customer software and hardware requirements; testing the

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DOHRS-HC application and the DOHRS Data Repository; monitoring implementation of the application; determining maintenance and training needs in cooperation with customers, submitting cost justifications and promoting tri-service acceptance as well as continuous product improvement phase following deployment. Functional representatives also develop training materials and train users on DOHRS-HC and the DOHRS Data Repository; market DOHRS to users and management; provide functional and limited technical support to DOHRS-HC users; and coordinate a variety of hearing conservation policy issues with the appropriate personnel within and outside of the Audiology community and service specific arenas. As a functional representative, I was involved in drafting the original requirements document which was the basis for the solicitation, and with which proposals submitted in response to the solicitation were to comply. I also was involved in the evaluation of the actual proposals submitted in response to the solicitation, and I provided technical content in the question/answer and amendment process.

8. Solicitation DADA 15-96-R-0031 originally called for an audiometer system that was capable of simultaneously operating up to eight (8) audiometer stations (4.2.1.3, Appendix C), and that could simultaneously test eight listeners in 15 minutes or less (4.2.2.1.14, Appendix C).
9. Solicitation DADA 15-96-R-0031 originally called for automatic re-testing (without operator intervention) if a threshold change of ± 15 dB or greater occurs at any frequency during testing, as compared to the reference, if any frequency has a hearing threshold level (HTL) of 90dB or greater, if there is an HTL difference of 40 dB or more between ears at the same frequency, if the HTL at 500 Hz is greater than 30 dB, if there is a difference of 50 dB or greater for an adjacent frequency, or if an HTL is not validated due to inconsistent responses (4.2.2.2, Appendix C).

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10. Solicitation DADA 15-96-R-0031 originally called for the presentation of fault codes by an immediate warning (an on-screen visual and auditory signal) given to the audiometric technician (test administrator) when a listener response is not obtained for the first ear tested at 1000 Hz, there is no validation for the first test ear response at 1000 Hz, the first ear fails the 1000 Hz retest, i.e., the HTL is not within +/- 5 dB of the initial HTL, there is no release of the hand switch button, more than one response per frequency is given without additional tone presentation, the retest did not validate the HTLs at the required one or two frequencies, or there is no validation of the HTLs at three frequencies (4.2.2.3, Appendix C).
11. Solicitation DADA 15-96-R-0031 originally called for a display to allow visual monitoring of testing for each individual test station. The frequency and intensity of the display was to indicate the Fault Codes for each station with appropriate instructions to the operator for counseling the listener. In addition, the solicitation stated that "a voice chip interface will provide the listener with instructions for the appropriate Fault Code or standard instructions for taking a hearing test..." (4.2.2.5, Appendix C).
12. Solicitation DADA 15-96-R-0031 originally called for control keys to be available to the technician, including an individual talk over function to pause the test while an individual listener is given instructions from the technician or the software, and a group talk over function to pause the test while all listeners are given instructions from the technician or the software.
13. The competitive bid process allows potential vendors to submit questions in writing. Answers are provided in amendments to the solicitation so that all potential vendors have fair access to the information in the answers. In solicitation DADA 15-96-R-0031, questions that referred to technical content were forwarded from the contracting office to the functional team of which I was a member.

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14. If government requirements change during the solicitation process, an amendment is generated to reflect that change. For example, in solicitation DADA 15-96-R-0031, the requirement that the audiometer interface with the Department of Defense "HEARS" database was removed.
15. Products submitted in response to solicitation DADA 15-96-R-0031 were evaluated on (1) technical quality, (2) past performance, and (3) cost. The criteria for technical quality included over 100 factors, each of which was weighted for importance and graded. The technical quality score for each product was calculated by the functional representatives and forwarded to the contracting office. As I recall, technical quality and past performance were weighted more than cost in the overall score for each product.
16. The features described in requirements 4.2.2.3 of Appendix C (referred to in paragraph 10 above) were all considered "extremely important." The features in requirement 4.2.2.5 of Appendix C (paragraph 11 above) were considered either "extremely important" or "very important," with error codes and instructions regarding errors being weighted as "extremely important." Voice communication (talk-over activated by a technician) was considered "very important."
17. I recall that only two products were presented for live test demonstrations in response to Solicitation DADA 15-96-R-0031. These products were the Maico MA-1000 Audiometer (submitted as a joint entry with Benson Medical) and the Tremetrics Occupational Health Group RA650 Audiometer. Both of these products had the capability to automatically switch from the delivery of test tones to the delivery of audible corrective instructions, and then to automatically switch back to the delivery of test tones without intervention by a human test administrator.
18. Both the Maico and Tremetrics products that were evaluated had features that made testing of up to eight listeners at a time more efficient. The ability to

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automatically switch from the delivery of test tones to the delivery of audible corrective instructions, and then to automatically switch back to the delivery of test tones without intervention by a human test administrator exceeded the requirements of solicitation DADA 15-96-R-0031, which only called for the ability to provide instructions with a voice clip interface. The further ability to automatically resume testing after delivering corrective instructions in response to an error resulted in an even more favorable score for these products, as it is very beneficial when testing for many listeners to have routine errors handled automatically and for the test be restarted without intervention from the administrator. For example, several listeners can have different errors at the same time. Test time would be extended if the administrator had to intervene with every error.

19. I have reviewed Japanese Publication No. JP 7 308310 ("the '310 publication") and the RION AA-75 Operating Manual ("the RION manual").
20. Based on my review, the '310 publication and the RION manual do not disclose a system that automatically switches from outputting test tones to outputting computer-generated instructions when an error is detected, and back to outputting test tones after the instructions have been provided. Rather, switching back to outputting test tones after interrupting a hearing test is performed in the '310 publication and the RION manual by a test administrator who must manually restart the test. The requirement of the administrator to restart the exam is integral to the equipment detailed in the '310 publication and the RION manual.
21. Based on my review, the '310 publication and the RION manual disclose a system in which a routine for handling errors is provided that involves providing a test tone at an increased volume level if the patient continued to press a response button after the test tone is discontinued. See paragraphs 62 and 63 of the '310 publication, and paragraph 8 of the RION manual. This

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routine does not involve switching from outputting test tones to outputting corrective instructions, and then switching back to outputting test tones after the corrective instructions have been delivered. An increased tone level is not equivalent to a corrective instruction in audiometric testing systems, as effective and consistent test results cannot be expected from a mere presentation of an increased tone level in response to errors. For example, if the listener is waiting until the tone is judged to be obvious, the listener's reference may vary, causing inconsistent responses. A louder presentation will not correct this inconsistent response. The listener must be reminded to respond to any tone heard, even very quiet tones.

22. Based on my review, the '310 publication and the RION manual teach that whenever the system switches from outputting test tones to outputting a notification of an error condition, such as via a message on a display and/or an alarm, a human test administrator is required to manually resume testing by pressing a button that switches back to outputting test tones. See paragraphs 43, 65 and 75 of the '310 publication, and paragraph 9 of the RION manual.
23. Based on my experience as the chair of the Council for Accreditation in Occupational Hearing Conservation, which is the national certifying body for persons who conduct audiometric testing in industry and in the military, it is important to deliver clear and standard instructions for taking an audiometric test, and especially to re-instruct the person taking the test when errors occur. When a human test administrator is responsible for these instructions, that person must be trained extensively to ensure that the instructions given will be effective and understood, and to ensure that successive tests proceed in a consistent manner.
24. Errors that are detected in the system described in the '310 publication trigger a "specific means of notification" that is disclosed as an alarm and/or a

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display. The message shown on the display does not provide corrective instructions to the test subject. In my experience, audiometric systems that respond to errors with means of notification such as an alarm and a display are designed to notify a test administrator that attention is required in order to recover from an error that has occurred during a hearing examination. An alarm and/or display is not sufficient to instruct/re-instruct a person taking a test following an error (see paragraph 23 above), and systems of this type (such as the system in the '310 publication and the RION manual) therefore require a test administrator to intervene, provide corrective instructions, and manually restart testing.

25. If a system such as the system disclosed in the '310 publication and the RION manual had been submitted in response to Solicitation DADA 15-96-R-0031, in competition with the submissions from Tremetrics Occupational Health Group and Maico/Benson, it is my opinion that the system as disclosed in the '310 publication and the RION manual would have scored lower than either of those two submissions, and would not have been awarded the microprocessor audiometer contract. This opinion is based on several factors. First, the answer to Question (f) in an Amendment to the original solicitation (provided in Appendix D) shows that the government expected automation of voice communications, such as the audiometer sending a fault code to a computer that would play an instruction. Second, the requirements in sections 4.2.2.3 and 4.2.2.5 of the original solicitation (Appendix C, described in paragraphs 10 and 11 above), dealing with the presentation of fault codes and the voice chip interface requirement, were considered "extremely important." Any inferiority in capability in these areas would be rated significantly lower than the Tremetrics Occupational Health Group and Maico/Benson products with their fully automatic capabilities. Third, the requirement in section 4.2.2.1.14 of the original solicitation (Appendix C)

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refers to the time required to administer an eight-person test. Any increase in the time required to administer an eight-person test, such as by requiring a test administrator to manually resume testing following detection of an error, would have received a less favorable rating than the Tremetrics Occupational Health Group and Maico/Benson products with their fully automatic test resumption abilities. The time required to administer an eight-person test was considered "very important" in the evaluation process.

26. The Maico MA-1000 Audiometer was successful in winning the contract associated with Solicitation DADA 15-96-R-0031. This product included the capability to switch from the delivery of test tones to the delivery of audible corrective instructions to a listener in response to a detected error in the listener's responses to the test tones, and to automatically switch back to the delivery of test tones after delivering the corrective instructions (as described in claims 6-21 attached as Appendix B). In evaluating the products submitted in response to Solicitation DADA 15-96-R-0031, this capability was essential to the selection of the Maico MA-1000 Audiometer as the winning bid.
27. I have reviewed U.S. Patent Nos. 4,489,610 (Slavin) and 3,809,811 (Delisle et al.).
28. I was familiar with the state of the art in hearing conservation equipment in the mid-1990's (before the April 29, 1996 priority date of U.S. Application No. 10/685,240, and before responses were received to Solicitation DADA 15-96-R-0031). At this time, there was no system publicly available or known that automatically delivered audible corrective instructions in response to detected error conditions, and then automatically resumed the delivery of test tones without human intervention.
29. Based on my review of the '310 publication, the RION manual, the Slavin patent and the Delisle et al. patent, I can find no suggestion in any of these references that would have motivated me or others skilled in the art of

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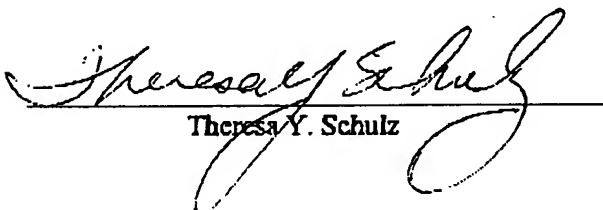
hearing conservation to modify the equipment described in the '310 publication to include the capability to switch from the delivery of test tones to the delivery of audible corrective instructions in response to an error, and then to automatically resume the delivery of test tones after the audible corrective instructions are delivered.

30. As discussed above, the '310 publication and the RION manual do not disclose the delivery of corrective instructions that would effectively instruct the test subject to change his/her response behavior, and do not disclose automatically resuming testing after interrupting the test due to an error; a human test administrator is required to resume testing. The Slavin and Delisle et al. patents do not provide any suggestion to modify the system of the '310 publication to include this capability, as neither of these patents have anything to do with error correction. Systems such as those disclosed by Slavin and Delisle et al. needed to utilize a human test administrator to recover from errors during a test, and in my opinion the Slavin patent and the Delisle et al. patent do not provide any suggestion or motivation to eliminate the test administrator that is required by the '310 publication to restart testing following an error notification.
31. In my opinion, as a person skilled in the art of hearing conservation, it would not have been obvious in view of the teachings of the '310 publication, the RION manual, the Slavin patent, the Delisle et al. patent, and other knowledge available in the art, to provide an audiometer system that had the capability of automatically delivering audible corrective instructions in response to detected error conditions, and then automatically resuming the delivery of test tones without human intervention. All of the known systems at this time required a human test administrator to ensure that corrective instructions were delivered and understood, and to resume testing, and there

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was no system or literature available at that time that taught how to perform these functions automatically without human intervention.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.


Theresa Y. Schulz

Date: 12 Sept 2006

APPENDIX A

Theresa Y. Schulz, Ph.D.
Lieutenant Colonel, United States Air Force, (Ret.)

Theresa Y. Schulz
P.O. Box 344
Fall Branch, TN 37656

(210) 573-3379
lhearU2@earthlink.net
Security Clearance: Secret

PROFESSIONAL EXPERIENCE

Aug 06 – present Senior Consultant, Schulz Consulting, Fall Branch, TN
- Independent consultant in hearing loss prevention.

Jul 05 – Aug 06 Research Audiologist, Mountain Home Veterans Affairs Medical Center, Johnson City, TN
- Temporary research appointment
- Cultivate research partnerships with DoD and VA, as well as other funding sources
- Coordinate Institutional Review Board activities for the Audiology Department
- Plan and manage regional audiology educational conference

Mar 05 – Jul 05 Masters of Public Health Coordinator, Department of Public Health, East Tennessee State University; Adjunct faculty in Department of Communicative Disorders, Johnson City, TN
- Temporary faculty appointment
- Campus Coordinator for Tennessee Public Health Workforce Consortium
RESULTS:
- Prepared Department for Re-Accreditation by Council on Education in Public Health
- Wrote curriculum documents for doctoral degree in Public Health
- Formulated "Academic Quality Initiatives" for improved learner outcomes
- Developed and taught Hearing Conservation course for 2nd and 3rd year audiology doctoral (AuD) students
- Advised students applying for MPH Program and coordinated Admissions Committee activities

Jun 04 – Mar 05 Vice President of Professional Operations, Sonomax Hearing Healthcare, Inc, Montreal, Canada
- Recruited, trained and managed network of personnel to implement the Sonomax Solution™, a new patented instant-fit, custom, calibrated and certified personal hearing protection device.
- Standardized operating procedures for start-up company
- Educated professional organizations about the Sonomax Solution™ and hearing conservation issues

- Performed high-level presentation of the Sonomax Solution™ to corporate leaders
- Served as representative to relevant national standards committees and associated working groups
- Designed and conducted research studies

RESULTS:

- Developed partnership with existing service provider network to leverage their significant resources
- Trained 18 Sonomax Solution™ implementers in first 5 months
- Spearheaded standard operating procedures, improved customer and internal relations – decreased complaints
- Published 2 articles within first 6 months; "Federal Railroad Administration and Hearing Conservation," *CAOHC Update*, The Newsletter of the Council for Accreditation in Occupational Hearing Conservation, Volume 16, Issue 3. Fall 2004. "Troops Return with Alarming Rates of Hearing Loss," *Hearing Health*, Deafness Research Foundation, Washington D.C. Fall 2004.
- Named to ANSI Hearing Protector Committee (S-12 Working Group)

Jan 02 – Jun 04 Acting Director & Deputy Director, Plans and Programs, 311th Human Systems Wing, Brooks City-Base, TX

- Handpicked by Wing Commander to serve as Interim Director of Plans and Programs Directorate
- Developed Wing's goals and integrated Wing's capabilities for time-critical initiatives for short and long-term "business plan."
- Focal point for human-centered and medical factors in the Air Force Material Command's (AFMC) modernization planning process
- Developed strategies for meeting Air Force and United States' nuclear/biological/chemical (NBC) homeland security needs

RESULTS:

- Restructured Wing management system increasing focus on the warfighter's needs and sharper resource allocation
- Increased awareness of value of "human systems integration" (HSI) throughout the Air Force. Chief of Staff of the Air Force authorized HSI study. Early planning of how the human can be fully integrated maximizes the capability of all Air Force weapons systems
- Masterminded Wing NBC defense initiative which helped define next-generation force protection measures to keep soldiers, sailors, airmen and civilians safe at home and abroad

Jul 00 – Jan 02 Chief, Modernization Planning, 311th Human Systems Wing, Brooks AFB, TX

- Implemented the 311th Human Systems Wing's development planning initiative centered on the Combatant Commander's requirements

- Integrated aircrew systems, medical and environmental, occupational health & safety modernization plans
- Identified and resolved future human issues (Human Systems Integration) before they limit war-fighter capability in Air Expeditionary Forces

RESULTS:

- Rapidly structured Wing response to September 11th antiterrorism taskings and ensured full aeromedical assets were on-line fast. Involved in dispatch of potential life-saving prototype to ground zero to identify living casualties under World Trade Center rubble
- Directed Wing response to congressional inquiry on homeland defense. Introduced new technologies that increased national security capabilities
- Led Air Force Medical Service requirements process to prioritize medical needs; this focused the fiscal planning for all Air Force Major Commands to more efficiently use limited resources
- Ensured focus on human issues early in system design evaluations and developed concepts for total integration of all battle activities (air, ground and sea).

Jun 96 – Jul 00 DoD Executive Manager for Joint Service Hearing Conservation, Aberdeen Proving Ground/Edgewood Area, MD

- Directed Army, Air Force and Navy (tri-service) team in development of standardized hearing conservation policies which were implemented by all of the Department of Defense (DoD)
- Managed tri-service hearing conservation data requirement; smoothly negotiated cross-DoD agreement to standardize policies and business practices throughout the Department of Defense
- Guided research, development and acquisition for DoD Hearing Conservation Programs,
- Managed contracts for DoD hearing conservation software development and hardware acquisition

RESULTS:

- Principle investigator on three studies that led DoD advisors to major policy improvements: change in Significant Threshold Shift (STS) criteria to identify early noise-induced hearing loss, follow-up procedures for suspected hearing loss and referral policy for early identification of possible acoustic neuroma
- Procured nearly 800 computer-based microprocessor audiometers saving \$3.3M over commercial purchase and meeting Year 2000 deadlines for over 2000 HC users DoD-wide
- Developed formal training and consultation requirements for Army, Air Force and Navy to implement common hearing conservation software through imaginative user support, saving \$1.2 M in training costs
- Reengineered data collection for Department of Defense hearing conservation to help reduce the \$20M hearing loss compensation claims paid within DoD annually

- Served as expert advisor to Air Force to clarify and standardize policy on fetal noise exposure

May 94 – Jun 96 Chief, USAF Hearing Conservation Data Registry, Brooks AFB, TX

- Managed the Air Force hearing conservation database comprised of over 4 million records from 276 medical treatment facilities worldwide
- Directed the analysis of over 150,000 Air Force hearing conservation audiograms annually
- Reported trends, recommended improvements, and drafted policy of the Air Force Hearing Conservation Program for the Air Force Surgeon General and all Air Force Major Commands
- Led automation of Air Force Hearing Conservation Program with acquisition of new systems and increasing participation from 12 to 132 Hearing Conservation Program sites in one year
- Taught hearing conservation module to physician residents in Aerospace Medicine, occupational hearing conservationists, industrial hygienists and public health officers and technicians

RESULTS:

- Completed 10 studies for Air Force and Department of Defense senior medical advisors influencing major policy changes including new criteria to define when a decrease in hearing levels was to be considered significant, procedures to evaluate changes in hearing, and identification of high risk occupations
- Enhanced readiness assessment Air Force-wide by creating automated tracking of hearing status for 182,320 noise-exposed workers
- Taught over 200 hours annually of classroom instruction to physicians, nurses, technicians, industrial hygienists, and others
- Most productive consultant in the Armstrong Laboratory's Occupational Health Division with over 500 personal consultation and up to 23 major taskings annually from hearing conservation programs, Major Command surgeons and the Air Force Surgeon General's office

**Oct 92 – May 94 Chief, Audiological Research, Armstrong Laboratory
Aeromedical Consult Service, Brooks AFB, TX**

- Developed and directed research projects to evaluate and protect human hearing and communication abilities. Managed \$285K in research resources
- Performed diagnostic and occupational audiological examinations in support of the Aeromedical Consultation Center to evaluate medically grounded aircrew members
- Assessed, evaluated, analyzed and interpreted test results to determine fitness for duty for cases of hearing impairment or vestibular dysfunction Air Force-wide

RESULTS:

- Returned over 80% of grounded aviators back to the cockpit through appropriate

diagnosis and recommended treatment or accommodation

- Coordinated and developed new prototype system: Speech Communication in Noise Environments (SCONE) to evaluate speech communication abilities of flyers in simulated cockpit environment
- Co-investigator in study of the effects of linear acceleration (centrifuge rides up to 9 Gs) on distortion product otoacoustic emissions

Aug 90 – Oct 92 Doctoral Student in Hearing Science, The Ohio State University, Columbus, OH

- Graduate studies with emphasis on epidemiology (36 hours), hearing conservation (28 hours), hearing science (26 hours), supervised research and teaching (9 hours) and neuropsychology (6 hours)
- Completed all requirements for degree (to include dissertation) in three and one-half years

RESULTS:

- Successfully earned Doctoral Degree in Hearing Science
- Dissertation, "Monitoring Audiometry in Hearing Conservation Programs" used Detection Theory measures such as relative operating characteristic (ROC) curves to analyze various significant threshold shift (STS) criteria and follow-up processes for efficacy.
- Taught graduate level Hearing Conservation course
- Developed a method to quantify the "smoothness" of a hearing aid frequency response curve "Frequency Response Smoothness Quantification Index (FReSQI)
- GPA 3.68 of 4.00

Oct 86 – Aug 90 Chief, Hearing Conservation Program, McClellan AFB, CA

- Oversaw comprehensive hearing conservation program providing diagnostic services and program management for over 6,000 military and civilian noise exposed personnel
- Conducted audiologic evaluations, analyzed and interpreted test results to determine appropriate treatment, rehabilitation and fitness for duty

RESULTS:

- Developed comprehensive computer program to track worker's occupational noise exposures
- Reduced amount paid for average hearing loss claim from \$15,614 to \$8,800 by thorough documentation of the work-relatedness (or non-work-relatedness) of the hearing loss
- Selected as the hearing conservation consultant to the Major Command over 5 more senior audiologists. This Major Command had a major medical center, 5 sites with major hearing conservation programs and over 50,000 noise exposed personnel at that time
- Developed a public relations program, "Be Aware of Noise Generation (BANG)" to educate young people about the hazards of loud noise

**Jan 84 – Oct 86 Chief, Audiology and Hearing Conservation, Irwin Army
Hospital, Ft. Riley, KS**

- Provided hearing conservation and hearing health services for the 1st Infantry Division and all tenant units at Ft Riley, Kansas.

RESULTS:

- Developed process to evaluate hearing aid candidates on-site at Ft. Riley and accompanied candidates to the major medical center for hearing aid fitting and aural rehabilitation until full service hearing aid clinic was established
- Established full service diagnostic and hearing aid clinic at Ft. Riley reducing hours away from work, saving travel costs and providing timely service and rehabilitation.

EDUCATION

Academic Degrees

Doctorate of Philosophy - March 1994
The Ohio State University, Columbus, OH
Hearing Science
Dissertation: *Monitoring Audiometry in Hearing Conservation Programs*
Advisor: William Melnick, Ph.D.

Masters of Science – Dec 1983
The University of Texas at Austin, Austin, TX
Audiology
Thesis: *Speech Intelligibility in Noise with E-A-R Ear Protection*
Advisor: The late Lennart L. Kopra, Ph.D.

Bachelor of Science - December 1981
The University of Texas at Austin, Austin, TX
Communication Disorders

Certification and Licensure

Certificate of Clinical Competence - Audiology (01032788), certified since 1985
Texas Licensure - Audiology (51227)
Certified Course Director of the Council for Accreditation in Occupational Hearing Conservation (CAOHC) (52085)
Certified Professional Supervisor of the Audiometric Monitoring of Hearing Conservation Programs (CAOHC) (5xxxx)

Professional Affiliations and Accomplishments

President-Elect, Past Vice President and Committee Chair of the National Hearing Conservation Association

Past-President of the Military Audiology Association,
Past-Chair of the Council for Accreditation in Occupational Hearing Conservation
(National certifying body for occupational hearing conservationists)
Fellow of the American Academy of Audiology
Certified Member of the American Speech, Language and Hearing Association
Member, Air Force Audiology Association
Member, American Auditory Society

- Selected by Deputy Assistant Secretary of the Army as Vice Chair of Department of Defense Hearing Conservation Working Group
- Served as consultant to all Air Force Major Commands, the Secretary of the Air Force and the Department of Defense concerning joint service hearing conservation programs
- Developed a public relations program, "Be Aware of Noise Generation (BANG)" to educate young people about the hazards of loud noise
 - Championed into a Department of Defense (DoD)-wide initiative
 - Spearheaded the "National Hearing Conservation Association (NHCA) poster contest" to educate local students in the hosting city of the annual NHCA conference.
 - Inspired Partnership with NHCA and the Sertoma Club to develop "CRANK IT DOWN," a nation-wide outreach program to encourage local communities and schools to educate children and adolescents regarding the risk of noise induced hearing loss from hazardous noise exposures
- Chair of national certifying body, Council for Accreditation in Occupational Hearing Conservation (CAOHC)
- Produced video curriculum on ear anatomy & physiology which is used worldwide in classes training hearing conservationists
- Guest speaker at National Institute of Occupational Safety and Health's (NIOSH) Best Practices in HC conference
- Peer reviewed NIOSH protocols for hearing conservation studies
- Served as advisor for a national project, "Dangerous Decibels," to educate young people about noise hazards via a science museum exhibit with interactive demonstrations and games
- Addressed national conference of lawyers and physicians as invited expert in medical/legal hearing loss
- Spearheaded international conference as Vice President of National Hearing Conservation Association
- Consultant to Aearo (E-A-R) Corporation providing full-day hearing loss prevention seminars for all professions involved in hearing conservation

DOCTORAL AND CAPSTONE COMMITTEES

Served as committee advisor for the following doctoral candidates:

Joseph Narrigan, June 2001

Central Michigan University

AuD Capstone Project: *Critical hearing jobs and fitness for duty evaluations in an occupational hazardous noise environment.*

Cynthia Sabin Eades, June 2002

University of Arizona

PhD Dissertation: *Survey of Recreational Noise Exposure in Air Force Personnel.*

Serve as military liaison to committee

Vicki Tuten, September 2002

Central Michigan University

AuD Capstone Project: *Council for Accreditation in Hearing Conservation (CAOHC) Training Material Needs Assessment Survey.*

Kelly Paul, July 2006

Central Michigan University

AuD Capstone Project: *Department of Defense Hearing Conservation Tool Box*

AWARDS AND HONORS

2004 Air Force Meritorious Service Medal, 3rd Oak Leaf Cluster

2004 Military Outstanding Volunteer Service Medal

2004 Air Force winner of National Public Service Award

2000 Air Force Meritorious Service Medal, 2nd Oak Leaf Cluster

1997 Air Force Outstanding Audiologist of the Year

1996 Elizabeth Guild Award for Contributions to Military Hearing Conservation

1996 Air Force Meritorious Service Medal, 1st Oak Leaf Cluster

1990 Air Force Meritorious Service Medal

1989 Air Force Outstanding Audiologist of the Year

1988 Air Force Achievement Medal

1986 Army Commendation Medal

- Unprecedented achievement: United States Air Force Outstanding Audiologist of the Year 1997 and 1989; the only repeat winner ever
- Awarded National Public Service Award at Air Force level 2004 to honor individuals whose outstanding contributions and accomplishments can be viewed as models of public service and who exhibit the highest standards of excellence, dedication, and

accomplishment as creative and skilled career managers

- Awarded "Outstanding Lecturer" award at international hearing conservation forum for a presentation on "Industrial Hearing Conservation and Cerebellopontine Angle Tumors" 1997
- Selected as Outstanding Woman of the Year, Brooks Air Force Base, 1994

PUBLICATIONS **(Journal Articles, Regulations & Guidelines)**

Royster, J. D., Stephens, M. M., Schulz, T. Y., Miller, M. H., McDaniel, M. M., Glaser, R. H., and Cook, G. R. (2003). "The Audiologist's Role in Occupational Hearing Conservation and Hearing Loss Prevention Programs: Technical report," *ASHA Supplement 24*, 1-19.

Johnson, R. E, Allen J. R., Schulz, T. Y, Liening D. A., and Bell A. F. "The Effects of Linear Acceleration on Distortion Product Otoacoustic Emissions in Human Ears" *Aviation, Space, and Environmental Medicine*, Volume 69, No. 1. 1998.

Schulz, T., Dunn, D., Glaser, R. H., Stewart, A., Thompson, M. E., and Tuten, V. 1996. "Guidelines on the Audiologist's Role in Occupational and Environmental Hearing Conservation," *Asha* 38(2), 45-52.

ABSTRACTS

1. Schulz, T.Y. "CAOHC Quality Assurance," CAOHC Course Director workshops from Oct 97 – Oct 05 Over 20 presentations in conjunction with Council for Accreditation of Occupational Hearing Conservationists (CAOHC) Workshops to train CAOHC Course Directors (CDs). These CDs will train the occupational hearing conservationists in the US and Canada for industry and the military.
2. Danielson, R. W. Schulz, T.Y. and Brownson, P. J. "The Role of the Professional Supervisor in Hearing Conservation Programs" American Occupational Health Conference, Washington, DC. May 2005.
3. Schulz, T. Y. "Evaluating and Improving Your Hearing Conservation Program" American Occupational Health Conference, Atlanta, GA. May 2003.
4. Schulz, T. Y., Berger, E. H., Driscoll, D., Waldo, T "Hearing Loss Prevention: The Basics," National Hearing Conservation Association Annual Conference, Dallas, TX. Feb 2003.

5. Danielson, R. W. Schulz, T. Y., Cooper, B. "The Occupational Hearing Conservationists' Professional Supervisor," American Occupational Health Conference, Chicago, IL May 2002.
6. Schulz, T. Y., Ohlin, D. "Hearing Conservation Metrics," National Hearing Conservation Association Annual Conference, Dallas, TX. Feb 2002.
7. Berger, E. H., Schulz, T. Y. "Hearing Conservation: To Conserve the Precious Sense of Hearing." AEARO seminars in Denver, May 2000; Boston, Oct 2000; Vancouver B.C, May 2001; Kansas City, Oct 2001.
8. Schulz, T. Y. "Follow-up and Referral." National Hearing Conservation Association Annual Conference, Raleigh-Durham, North Carolina. Feb 2001.
9. Schulz, T. Y. "Using Hearing Conservation Data to Determine Program Policy." NIOSH Best Practices in Hearing Loss Prevention, Detroit, MI. Oct 1999.
10. Schulz, T. Y. "Hearing Conservation Referral Criteria." Platform presentation at National Hearing Conservation Association Annual Conference, Atlanta, GA. Feb 1999.
11. Schulz, T. Y. "Defense Occupational Health Readiness System – Hearing Conservation." Demonstration at the Health Information Management Systems Society Annual Conference. Atlanta, GA. Feb 1999.
12. Schulz, T. Y. "Hot Issues in Hearing conservation." Delaware Valley Industrial Hygiene Association, Newark, DE. Jan 1999.
13. Schulz, T. Y. "Stop the Noise! Educate and Motivate: Hearing Conservation in Educational and Community Settings." American Speech-Language and Hearing Association Tele-seminar. Jul 1998.
14. Schulz, T. Y. "The New Air Force Hearing Conservation Program." Aeromedical Skills Development Course, School of Aerospace Medicine, Brooks AFB, TX. Jul 1998.
15. Schulz, T. Y. "Audiologic Testing for Exaggerated Hearing Loss," "Dosimetry," Medical/Legal Evaluation of Hearing Loss Symposium, Hilton Head Island, SC. Jun 1998.

16. Schulz, T. Y. "The Hearing Conservation Program/Evaluating Auditory Readiness Tri-Service Application (EAR3-A)." Association of Military Surgeons Annual Conference, San Antonio, TX. Nov 1998.
17. Schulz, T. Y. "Evaluating Hearing Conservation Program Effectiveness: Now and Into the 21st Century," "EAR3-A Demonstration," and "Identification of Acoustic Neuromas via Hearing Conservation." Navy Occupational Health and Preventive Medicine Workshop, San Diego, CA. Mar 1998.
18. Schulz, T. Y. "Let's Hear it From the End Users: Supervisors and Safety Personnel." Forum leader at the National Hearing Conservation Association (NHCA) Annual Conference, Albuquerque, NM. Feb 1998.
19. Schulz, T. Y. "EAR3-A Workshop." Military Audiology Short Course, Albuquerque, NM. Feb 1998.
20. Schulz, T. Y. "Hot Topics in hearing Conservation." National Hearing Conservation Association Annual Excellence in Hearing Conservation Seminar, Baltimore, MD. Sep 1997.
21. Schulz, T. Y. "Industrial Hearing Conservation and Cerebellopontine Angle Tumors." Platform presentation at National Hearing Conservation Association (NHCA) Annual Conference, Orlando, FL. Feb 1997. **Received NHCA's Outstanding Lecture Award.**
22. Schulz, T. Y. "Industrial Hearing Conservation and Cerebellopontine Angle Tumors," Military Audiology Short Course, Orlando, FL. Feb 1997.
23. Schulz, T. Y. and Sabin, C. "Synergistic Ototraumatic Effects of Toluene Exposure in Hazardous Noise Environments," Military Audiology Short Course, Orlando, FL. Feb 1997.
24. Domanico, L., Schulz T. Y., and Shields, A. "Department of Defense HEARS- The Future is Coming!" Military Audiology Short Course, Orlando, FL. Feb 1997.
25. Schulz, T. Y. "Hearing Conservation Program Management Issues," National Hearing Conservation Association Annual Excellence in Hearing Conservation Seminar, Kansas City, MO. Sep 1996.

26. Johnson, R. E., Allen J. R., Schulz, T. Y., Lienen D. A., and Bell A. F. "The Effects of Linear Acceleration on Distortion Product Otoacoustic Emissions in Human Ears." Military Audiology Short Course, Virginia Beach, VA. Mar 1996.
27. Schulz, T. Y. "Exchange Rate Controversy: How Best to protect Employees?" Forum panelist at the National Hearing Conservation Association Annual Conference, San Francisco, CA. Feb 1996.
28. Schulz, T. Y. "Current Events in USAF Hearing Conservation," and "What the Hearing Conservation Program Technicians Need from the Hearing Conservation Diagnostic Centers." Military Audiology Short Course, Richardson, TX. Apr 1995.
29. Schulz, T. Y. "An Alternative Method for Evaluation of Hearing Conservation Programs." Navy Occupational Health and Preventive Medicine Workshop. Hampton, VA. Mar 1995.
30. Schulz, T. Y. "An Alternative Method for Evaluation of Hearing Conservation Programs." National Hearing Conservation Association Annual Conference, Cincinnati, OH. Feb 1995.
31. Schulz, T. Y. "In Search of the Perfect STS Criteria." National Hearing Conservation Association Annual Conference, Atlanta, GA. Feb 94.
32. Schulz, T. Y. "An Investigation of Frequency Response Smoothness Quantification Index (FReSQI)." Military Audiology Short Course, Norfolk, VA. Mar 1993.

MISCELLANEOUS PROJECTS AND PUBLICATIONS

1. Schulz, T. Y. (2006). "Age Correction of Audiograms," *Update*, Volume 18, Issue 2.
2. Schulz, T. Y. (2006). "The Emperor Has No Clothes: Age Correction of Audiograms," *Spectrum*, Volume 23, Number 2.
3. Dennis, K. C., Schulz, T. Y. (2005). "Military Hearing Disabilities on the Rise," *Hearing Health*, Deafness Research Foundation, Washington, D.C.
4. Schulz, T. Y. (2005). "Custom-Molded Hearing Protectors," *CAOHC Update*, The Newsletter of the Council for Accreditation in Occupational Hearing Conservation, Volume 17, Issue 2.
5. Schulz, T. Y. (2004). "Federal Railroad Administration and Hearing Conservation," *CAOHC Update*, The Newsletter of the Council for Accreditation in Occupational Hearing Conservation, Volume 16, Issue 3.

6. Schulz T. Y. (2004). "Troops Return with Alarming Rates of Hearing Loss" *Hearing Health*, Fall 2004. Deafness Research Foundation. McLean, VA.
7. Vice Chair DoD HC Working Group (1997-2004). Selected by Deputy Assistant Secretary of the Army as Vice Chair of Department of Defense Hearing Conservation Working Group. Wrote policy and procedures for the Department of Defense Hearing Conservation Program.
8. Advisor, (2001). *Dangerous Decibels*, a national project to educate young people about noise hazards via a science museum exhibit with interactive demonstrations and games.
9. Consultant to Air Force Major Commands and the Secretary of the Air Force (1996-2000).
10. Project Director (1997- 1999). *Anatomy, Physiology and Diseases of the Ear Video Curriculum Package* Project for the Council for Accreditation in Occupational Hearing Conservation.
11. Project Director (1988 – 1998). *Operation Be Aware of Noise Generation (BANG)*, a public relations program to educate young people about the hazards of loud noise.
12. Schulz T. Y. (1996). "Alternative Methods to Evaluate Hearing Conservation Program Effectiveness." *Spectrum*, Supplement 1, (13)1; p. 28.
www.hearingconservation.org.
13. Schulz, T. Y. and Arriaga, M. A. (1997). "Industrial Hearing Conservation and Cerebellopontine Angle Tumors," *Spectrum* Suppl. 1, 14, p. 26.
www.hearingconservation.org.
14. Schulz, T. Y. (1994). "In Search of the Perfect STS Criteria," *Spectrum* Suppl. 1, 11, p. 21. www.hearingconservation.org.
15. Schulz, T. Y. (1991). "Operation BANG: Teaching Children to Be Aware of Noise." *Spectrum*, the newsletter of the National Hearing Conservation Association.
www.hearingconservation.org.
16. Schulz, T. and Webb, M. (1990). "Opportunities for Employee Education," *Spectrum* 7(3), p.8. www.hearingconservation.org.
17. Schulz, T. Y. (1989). "Making Workers Militant about Hearing Conservation" *Spectrum*, the newsletter of the National Hearing Conservation Association.
www.hearingconservation.org.
18. Schulz, T. Y. (1984). "Speech Intelligibility in Noise with Hearing Protection." *NHCA Newsletter*, Winter 1984. www.hearingconservation.org.

19. Schulz, T. Y. (1984). "Speech Intelligibility in Noise with Hearing Protection," Natl. Hearing Cons. Assoc. Newsletter, Nov-Dec, 11-15. www.hearingconservation.org.
20. Schulz, T. Y. (1983). "Speech Intelligibility in Noise With E-A-R Ear Protectors," Master's Thesis at University of Texas, Austin, TX.

APPENDIX B

6. A multimedia audiometer comprising:
 - audio circuitry capable of generating audible test tones for delivery to earphones worn by a test subject;
 - a computer selectively operable to produce instructions represented by sound waves for delivery to the earphones, the computer being operatively coupled to the audio circuitry;
 - microprocessor circuitry operatively coupled to the computer, the microprocessor circuitry including a central processing unit (CPU) and a memory;
 - an interface operatively coupled to the computer and the microprocessor circuitry for signaling whether the test subject perceives the audible test tones generated by the audio circuitry;
 - a switch having a first state in which audible test tones generated by the audio circuitry are provided to the earphones, and a second state in which the instructions represented by sound waves produced by the computer are provided to the earphones; and
 - software stored in at least one of the computer and the memory of the microprocessor circuitry, the software operating the computer, the microprocessor circuitry, the audio circuitry and the interface to generate the audible test tones for delivery to the earphones, monitor responses by the test subject, detect errors in the test subject's responses, selectively produce the instructions for delivery to the earphones in response to the detected errors, and to control the switch to switch to the second state when errors are detected in the test subject's responses and to automatically switch back to the first state following delivery of the instructions to the earphones so that testing is resumed without human intervention.
7. The multimedia audiometer of claim 6, wherein the responses of the test subject are compiled and stored in at least one of the computer and the memory of the microprocessor circuitry.
8. The multimedia audiometer of claim 7, wherein the software operates the computer, the microprocessor circuitry, the audio circuitry and the interface according to a pre-programmed logical testing procedure.
9. The multimedia audiometer of claim 8, wherein the logical testing procedure is the Hughson-Westlake procedure.

10. The multimedia audiometer of claim 6, wherein the software is stored in the computer.
11. The multimedia audiometer of claim 6, wherein the software is stored in the memory of the microprocessor circuitry.
12. A computer adapted to perform an audiometric test of a subject, comprising:
 - a test tone generator operable to deliver audible test tones to earphones worn by the subject;
 - an input/output interface; and
 - software programmed to control the test tone generator to deliver the audible test tones to the earphones worn by the subject, monitor responses by the subject received over the input/output interface, detect errors in the subject's responses, selectively deliver audible corrective instructions to the earphones in response to the detected errors, and automatically resume delivery of the audible test tones after the audible corrective instructions are delivered without human intervention.
13. The computer of claim 12, wherein the software is operable to compile the responses of the subject and store results of the audiometric test.
14. The computer of claim 13, wherein the software is operable to display and/or print the results of the audiometric test.
15. The multimedia audiometer of claim 6, wherein the switch comprises a relay circuit.
16. A method of performing an audiometric test of a subject, comprising:
 - controlling an audiometer to generate audible test tones in a headset worn by the subject;
 - monitoring responses to the audible test tones by the subject;
 - detecting errors in the subject's responses to the audible test tones;
 - storing the detected errors in a computer memory;
 - automatically producing selected audible corrective instructions in response to the detected errors and switching an input to the headset to the audible corrective instructions; and
 - automatically switching the input to the headset back to the audible test tones after the audible corrective instructions are produced.

17. The method of claim 16, wherein the steps of controlling the audiometer to generate audible test tones and monitoring the subject's responses are performed according to a logical testing procedure.
18. The method of claim 17, wherein the logical testing procedure is the Hughson-Westlake procedure.
19. The method of claim 16, wherein the step of automatically producing selected audible corrective instructions in response to the detected errors and switching the input to the headset to audible corrective instructions, and the step of automatically switching the input to the headset back to the audible test tones after the audible corrective instructions are produced are performed by a computer.
20. The method of claim 16, further comprising:
displaying and/or printing results of the audiometric test.
21. The method of claim 16, further comprising:
halting the audiometric test when a threshold number of errors is determined.

APPENDIX C

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS

OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30

1. REQUISITION NUMBER W23MMP-6073-1037		PAGE 1 OF 82
CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER
5. SOLICITATION NUMBER DADA15-96-R-0031		6. SOLICITATION ISSUE DATE 09/16/96
7. ITATION / CALL:	8. NAME R. TAYLOR	9. TELEPHONE NUMBER (No collect calls) (202) 782-1285
10. THIS ACQUISITION IS <input checked="" type="checkbox"/> UNRESTRICTED <input type="checkbox"/> SETASIDE: % FOR <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> SMALL DISADV. BUSINESS <input type="checkbox"/> (NA) SIC: 5047 SIZE STANDARD: 100 employees		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE <input checked="" type="checkbox"/> 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) 13b. RATING 14. METHOD OF SOLICITATION <input type="checkbox"/> RFO <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP
12. DISCOUNT TERMS		15. OFFER DUE DATE / LOCAL TIME 10/16/96 3:00pm

DIR OF CONTRACTING WALTER REED AMC
ATTN MCHL 2 BLDG T 20
6825 16TH STREET NW
WASHINGTON DC 20307-5000

DELIVER TO: ADDRESS
FOR SHIP TO: ADDRESS
TO BE CITED ON INDIVIDUAL DELIVERY ORDERS

CONTRACTOR/ OFFEROR CODE 63409 FACILITY CODE
Tremetrics
2215 Grand Avenue Parkway
Austin, TX 78728-3812 Phone 512-251-1490

16. ADMINISTERED BY
INQUIRIES (202)-782-1291 OR BY CALLING
SPECIALIST IN BLOCK 6 OF THIS FORM
DIRECTORATE OF CONTRACTING
WASHINGTON DC 20307

18a. PAYMENT WILL BE MADE BY

TO BE CITED ON INDIVIDUAL DELIVERY ORDERS

17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED ☐ SEE ADDENDUM

19. EM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE PAGES 3 THRU 7 ATTACHED. (Attach Additional Sheets as Necessary)				

ACCOUNTING AND APPROPRIATION DATA

25. TOTAL AWARD AMOUNT (For Govt. Use Only)

17a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3 AND 52.212-6 ARE ATTACHED. ADDENDA ☐ ARE ☒ ARE NOT ATTACHED.
17b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4, FAR 52.212-5 IS ATTACHED. ADDENDA ☐ ARE ☐ ARE NOT ATTACHED.

CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 2 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.

28. AWARD OF CONTRACT: REFERENCE ☐ OFFER DATED , YOUR OFFER ON SOLICITATION (BLOCK 5) INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:

SIGNATURE OF OFFEROR/CONTRACTOR <i>R. Chapman</i>		31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)	
NAME AND TITLE OF SIGNER (TYPE OR PRINT) Chapman, CEO/Pres. ThermoQuest		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT)	
30c. DATE SIGNED 1/18/97		31c. DATE SIGNED	
QUANTITY IN COLUMN 21 HAS BEEN RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED		33. SHIP NUMBER PARTIAL FINAL	
SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE		34. VOUCHER NUMBER	
32c. DATE		35. AMOUNT VERIFIED CORRECT FOR	
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT		36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	
SIGNATURE AND TITLE OF CERTIFYING OFFICER		37. CHECK NUMBER	
41c. DATE		38. S/R ACCOUNT NUMBER	
42a. RECEIVED BY (Print)		39. S/R VOUCHER NUMBER	
42b. RECEIVED AT (Location)		40. PAID BY	
42c. DATE REC'D (YY/MM/DD)		42d. TOTAL CONTAINERS	

INTENDED FOR LOCAL REPRODUCTION

SEE REVERSE FOR OMB CONTROL NUMBER AND PAPERWORK BURDEN STATEMENT

STANDARD FORM 1449 (10-95)
Prescribed by GSA FAR (48 CFR) 53.212

SUPPLIES/SERVICES AND PRICES

1. SCOPE.

1.1. This solicitation is for the acquisition and delivery of the microprocessor audiometer (MA) and their associated support items described in the specifications. The system is planned for delivery and implementation to approximately 750 Department of the Army, Department of the Air Force and Department of the Navy sites worldwide. All MAs will be acquired on a firm fixed price basis.

1.2. Additionally, the Government anticipates the purchase of MAs and their associated support items, on an "as needed" basis.

1.3. The Government is soliciting prices for the initial quantity of MAs as well as the estimated quantity of items to be acquired on an "as needed" basis.

2. GENERAL.

2.1. The pricing data furnished by the offeror in the price schedule will become a part of the awarded contract and will be used as the basis for computing payments to the Contractor under the ensuing contract.

2.2. This is a firm fixed-price requirements type contract for the MAs and their associated items as well as the support services set forth in the contract.

2.3. Only one contract is contemplated for this acquisition.

3. INSTRUCTIONS FOR COMPLETING PRICE SCHEDULE.

3.1 Prices must be prepared in the format and per the instructions described in this all succeeding sub-paragraphs in this Section. Include as a minimum, unit and total prices for each Contract Line Item Number (CLIN).

3.2. If any CLIN is not separately priced, "NRP" should be shown for the unit price. Similarly, "NC" should be shown for No Charge and "NA" for not applicable.

3.3. Offerors must propose firm fixed prices for each CLIN, including those for option periods.

SCHEDULE OF SUPPLIES/SERVICES

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>Estimated</u> <u>QUANTITY</u>	<u>U/I</u>	<u>U/P</u>	<u>Estimated</u> <u>AMOUNT</u>
BASIC CONTRACT PERIOD					
0001	MICROPROCESSOR AUDIOMETER (REFERENCE SPECIFICATION PARAGRAPH 4.1)				SEE PRICING PROPOSAL SECTION 9 (a), (b), (c) and (d)
0001AA	ONE - STATION	335.00	EA	_____	_____
0001AB	TWO - STATION	315.00	EA	_____	_____
0001AC	FOUR - STATION	125.00	EA	_____	_____
0001AD	SIX - STATION	80.00	EA	_____	_____
0001AE	EIGHT - STATION	55.00	EA	_____	_____
0001AF	ADDITIONAL BOARDS	20.00	EA	_____	_____
0001AG	TDH-39/49 EARPHONES IN MX41/AR EAR CUSHIONS (NAVY)	860.00	EA	_____	_____
0001AH	TDH-39/49 EARPHONES WITH MX41/AR EAR CUSHIONS IN CIRCUMRAURAL EARPHONES (ARMY AND AIR FORCE)	1,240.00	EA	_____	_____
0002	ELECTRONIC CALIBRATION MONITOR (REFERENCE SPECIFICATION PARAGRAPH 4.3.2)	2,675.00	EA	_____	_____
0003	MICROPROCESSOR AUDIOMETER INTERFACE SOFTWARE (REFERENCE SPECIFICATION PARAGRAPH 5)	930.00	EA	_____	_____
0004	MOUNTING BRACKETS	75.00	EA	_____	_____
0005	TRAINING CLASSES (REFERENCE SPECIFICATION PARAGRAPH 7.1)	650.00	EA	_____	_____
0006	DOCUMENTATION (REFERENCE SPECIFICATION PARAGRAPH 7.2)	1,860.00	SE	_____	_____
0007	INSTALLATION (REFERENCE SPECIFICATION PARAGRAPH 7.3)				
0007AA	INSTALLATION - CONUS SITES	480.00	EA	_____	_____
0007AB	INSTALLATION - EUROPE SITES	75.00	EA	_____	_____
0007AC	INSTALLATION - PACIFIC SITES	45.00	EA	_____	_____

ITEM	DESCRIPTION	Estimated QUANTITY	U/I	U/P	Estimated AMOUNT
0007AD	INSTALLATION - FLEET SITES	45.00	EA	_____	_____
0008	FIRST OPTION PERIOD MICROPROCESSOR AUDIOMETERS				
0008AA	ONE - STATION	40.00	EA	_____	_____
0008AB	TWO - STATION	35.00	EA	_____	_____
0008AC	FOUR - STATION	15.00	EA	_____	_____
0008AD	SIX - STATION	10.00	EA	_____	_____
0008AE	EIGHT - STATION	5.00	EA	_____	_____
0008AF	ADDITIONAL BOARDS	35.00	EA	_____	_____
0008AG	TDH-39/49 EARPHONES IN MX41/AR EAR CUSHIONS (NAVY)	15.00	EA	_____	_____
0008AH	TDH-39/49 EARPHONES WITH MX41/AR EAR CUSHIONS IN CIRCUMRAURAL EARPHONES (ARMY AND AIR FORCE)	20.00	EA	_____	_____
0009	ELECTRONIC CALIBRATION MONITOR	35.00	EA	_____	_____
0010	MICROPROCESSOR AUDIOMETER INTERFACE SOFTWARE	140.00	EA	_____	_____
0011	MOUNTING BRACKETS	2.00	EA	_____	_____
0012	TRAINING	25.00	EA	_____	_____
0013	DOCUMENTATION	280.00	SE	_____	_____
0014	INSTALLATION				
0014AA	INSTALLATION (CONUS SITES)	50.00	EA	_____	_____
0014AB	INSTALLATION (EUROPE SITES)	5.00	EA	_____	_____
0014AC	INSTALLATION (PACIFIC SITES)	2.00	EA	_____	_____
0014AD	INSTALLATION (FLEET SITES)	2.00	EA	_____	_____
0015	SECOND OPTION PERIOD MICROPROCESSOR AUDIOMETERS				
0015AA	ONE - STATION	8.00	EA	_____	_____
0015AB	TWO - STATION	8.00	EA	_____	_____

ITEM	DESCRIPTION	Estimated QUANTITY	U/I	U/P	Estimated AMOUNT
0015AC	FOUR - STATION	2.00	EA	_____	_____
0015AD	SIX - STATION	1.00	EA	_____	_____
0015AE	EIGHT - STATION	1.00	EA	_____	_____
0015AF	ADDITIONAL BOARDS	35.00	EA	_____	_____
0015AG	TDH-39/49 EARPHONES IN MX41/AR EAR CUSHIONS (NAVY)	10.00	EA	_____	_____
0015AH	TDH-39/49 EARPHONES WITH MX41/AR EAR CUSHIONS IN CIRCUMRAURAL EARPHONES (ARMY & AIR FORCE)	25.00	EA	_____	_____
0016	ELECTRONIC CALIBRATION MONITOR	35.00	EA	_____	_____
0017	MICROPROCESSOR AUDIOMETER INTERFACE SOFTWARE	55.00	EA	_____	_____
0018	MOUNTING BRACKETS	2.00	EA	_____	_____
0019	TRAINING	20.00	EA	_____	_____
0020	DOCUMENTATION	110.00	SE	_____	_____
0021	INSTALLATION				
0021AA	INSTALLATION (CONUS SITES)	5.00	EA	_____	_____
0021AB	INSTALLATION (EUROPE SITES)	5.00	EA	_____	_____
0021AC	INSTALLATION (PACIFIC SITES)	2.00	EA	_____	_____
0021AD	INSTALLATION (FLEET SITES)	2.00	EA	_____	_____
0022	THIRD OPTION PERIOD MICROPROCESSOR AUDIOMETERS				
0022AA	ONE - STATION	8.00	EA	_____	_____
0022AB	TWO - STATION	8.00	EA	_____	_____
0022AC	FOUR - STATION	2.00	EA	_____	_____
0022AD	SIX - STATION	1.00	EA	_____	_____
0022AE	EIGHT - STATION	1.00	EA	_____	_____
0022AF	ADDITIONAL BOARDS	40.00	EA	_____	_____

ITEM	DESCRIPTION	Estimated QUANTITY	U/I	U/P	Estimated AMOUNT
0022AG	TDH-39/49 EARPHONES IN MX41/AR EAR CUSHIONS (NAVY)	15.00	EA	_____.	_____.
0022AH	TDH-39/49 EARPHONES WITH MX41/AR EAR CUSHIONS IN CIRCUMRAURAL EARPHONES (ARMY AND AIR FORCE)	25.00	EA	_____.	_____.
0023	ELECTRONIC CALIBRATION MONITOR	40.00	EA	_____.	_____.
0024	MICROPROCESSOR AUDIOMETER INTERFACE SOFTWARE	60.00	EA	_____.	_____.
0025	MOUNTING BRACKETS	2.00	EA	_____.	_____.
0026	TRAINING	25.00	EA	_____.	_____.
0027	DOCUMENTATION	120.00	SE	_____.	_____.
0028	INSTALLATION				
0028AA	INSTALLATION (CONUS SITES)	5.00	EA	_____.	_____.
0028AB	INSTALLATION (EUROPE SITES)	5.00	EA	_____.	_____.
0028AC	INSTALLATION (PACIFIC SITES)	2.00	EA	_____.	_____.
0028AD	INSTALLATION (FLEET SITES)	2.00	EA	_____.	_____.
0029	FOURTH OPTION PERIOD MICROPROCESSOR AUDIOMETERS				
0029AA	ONE - STATION	16.00	EA	_____.	_____.
0029AB	TWO - STATION	16.00	EA	_____.	_____.
0029AC	FOUR - STATION	4.00	EA	_____.	_____.
0029AD	SIX - STATION	2.00	EA	_____.	_____.
0029AE	EIGHT - STATION	2.00	EA	_____.	_____.
0029AF	ADDITIONAL BOARDS	45.00	EA	_____.	_____.
0029AG	TDH-39/49 EARPHONES IN MX41/AR EAR CUSHIONS (NAVY)	15.00	EA	_____.	_____.
0029AH	TDH-39/49 EARPHONES WITH MX41/AR EAR CUSHIONS IN CIRCUMRAURAL EARPHONES (ARMY AND AIR FORCE)	30.00	EA	_____.	_____.
0030	ELECTRONIC CALIBRATION MONITOR	45.00	EA	_____.	_____.

ITEM	DESCRIPTION	Estimated QUANTITY	U/I	U/P	Estimated AMOUNT
0031	MICROPROCESSOR AUDIOMETER INTERFACE SOFTWARE	85.00	EA	_____.	_____.
0032	MOUNTING BRACKETS	4.00	EA	_____.	_____.
0033	TRAINING	30.00	EA	_____.	_____.
0034	DOCUMENTATION	170.00	SE	_____.	_____.
0035	INSTALLATION				
0035AA	INSTALLATION (CONUS SITES)	5.00	EA	_____.	_____.
0035AB	INSTALLATION (EUROPE SITES)	5.00	EA	_____.	_____.
0035AC	INSTALLATION (PACIFIC SITES)	4.00	EA	_____.	_____.
0035AD	INSTALLATION (FLEET SITES)	4.00	EA	_____.	_____.

TOTAL ESTIMATED AMOUNT (BASE PERIOD PLUS OPTIONS) _____

SEE PRICING PROPOSAL SECTION 9 (a), (b), (c) and (d)

(a) Inspection/Acceptance. The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Government must exercise its postacceptance rights (1) within a reasonable time after the defect was discovered or should have been discovered; and (2) before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(b) Assignment. The Contractor or its assignee's rights to be paid amounts due as a result of performance of this contract, may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C. 3727).

(c) Changes. Changes in the terms and conditions of this contract may be made only by written agreement of the parties.

(d) Disputes. This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, Disputes, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.

(e) Definitions. The clause at FAR 52.202-1, Definitions, is incorporated herein by reference.

(f) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(g) Invoice. The Contractor shall submit an original invoice and three

copies (or electronic invoice, if authorized,) to the address designated in the contract to receive invoices. An invoice must include--

- (1) Name and address of the Contractor;
- (2) Invoice date;
- (3) Contract number, contract line item number and, if applicable, the order number;
- (4) Description, quantity, unit of measure, unit price and extended price of the items delivered;
- (5) Shipping number and date of shipment including the bill of lading number and weight of shipment if shipped on Government bill of lading;
- (6) Terms of any prompt payment discount offered;
- (7) Name and address of official to whom payment is to be sent; and
- (8) Name, title, and phone number of person to be notified in event of defective invoice.

Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) Circular A-125, Prompt Payment.

(h) Patent indemnity. The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.

(i) Payment. Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract. The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) Circular A-125, Prompt Payment. Payments under this contract may be made by the Government either by check, electronic funds transfer, or the Automated Clearing House, at the option of the Government.

In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the date on which an electronic funds transfer was made.

(j) Risk of loss. Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract shall remain with the Contractor until, and shall pass to the Government upon:

- (1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or
- (2) Delivery of the supplies to the Government at the destination

specified in the contract, if transportation is f.o.b. destination.

(k) Taxes. The contract price includes all applicable Federal, State, and local taxes and duties.

(l) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

(m) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(n) Title. Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.

(o) Warranty. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(p) Limitation of liability. Except as otherwise provided by an express or implied warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.

(q) Other compliances. The Contractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations

applicable to its performance under this contract.

(r) Compliance with laws unique to Government contracts. The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C 327, et seq., Contract Work Hours and Safety Standards Act; 41 U.S.C. 51-58, Anti-Kickback Act of 1986; 41 U.S.C. 251 related to whistle blower protections; and 49 U.S.C 40118, Fly American.

(s) Order of precedence. Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order: (1) the schedule of supplies/services; (2) the Assignments, Disputes, Payments, Invoice, Other Compliances, and Compliance with Laws Unique to Government Contracts paragraphs of this clause; (3) the clause at 52.212-5; (4) addenda to this solicitation or contract, including any license agreements for computer software; (5) solicitation provisions if this is a solicitation; (6) other paragraphs of this clause; (7) the Standard Form 1449; (8) other documents, exhibits, and attachments; and (9) the specification.

(End of clause)

DADA15-96-R-0031

SPECIFICATIONS/WORK STATEMENT

1. Background.

DOD HEARS. The Department of Defense Hearing Evaluation and Audiometric Reporting System (DOD HEARS) is designed to facilitate hearing testing and hearing conservation program management at Army, Air Force, Navy and Marine Corps installations by:

- providing the technician with a microprocessor audiometer (MA) including voice communications, to complete hearing tests for up to eight individuals at a time;
- eliminating the majority of manually entered demographic data and having the DOD HEARS capture the hearing test data needed to complete the DD Forms 2215 and 2216 (Reference Audiogram and Hearing Conservation Data, respectively);
- providing electronic data storage to facilitate reporting program participation, program effectiveness, and quality assurance information to occupational health and command program managers at both the installation and headquarters levels.

2. Scope.

2.1. Objective. The primary objective of this contract is to provide an operational MA, which interfaces with the DOD HEARS software, to approximately 750 total Department of the Army, Department of the Air Force and Department of the Navy sites, both in the Continental United States (CONUS) and outside the Continental United States (OCONUS). See Appendix I for possible DOD HEARS Microprocessor Audiometer Configurations.

2.2. Equipment. Appendix II identifies the microcomputers and associated automated data processing equipment (ADPE) that will be provided as Government furnished equipment (GFE).

2.3. Contractor Responsibilities. The Contractor shall be required to provide MAS and all required interface software as described in the specifications. In addition, the Contractor shall provide full MA integration, installation, training and documentation for all MAs delivered under this contract.

3. System Requirements.

3.1. Mandatory Requirements. In order to responsive to this solicitation, the Contractor shall satisfy all stated technical requirements of this specification and the referenced Appendices. Requirements stated are a minimum, unless specified otherwise.

3.2 Original Equipment Manufacturer (OEM) Engineering Changes (ECS).

3.2.1. The Government will require all OEM-sponsored ECs prior to the date of contract award

to be incorporated into the equipment delivered under this contract. After the date of contract award, all future ECs shall be offered to the Government in accordance with pages 53 and 54, paragraph 4 entitled "Engineering Changes". The Government reserves the right to accept or reject the ECs. It is understood that a rejected EC may have to be accepted at a later date if it is required as a prerequisite to a future accepted EC.

3.2.2. The Contractor, upon commercial announcement of new components that can be technically substituted for, or added/inserted to, items listed in the CLINS of this contract, shall offer said items for substitution, insertion or deletion. The substitution shall provide equivalent or better performance than the existing product, and is offered at the same or lower price than the price provided for the product to be replaced.

3.2.3. Product additions/insertions are for technology which is not a product substitution but which provides new functionality not available on contract to support existing products. Product additions/insertions shall be within the scope of the contract and prices for additions/insertions will be negotiated.

3.3. Notification of Changes. The Contractor shall notify the Government of all changes prior to commencing modifications. All Contractor sponsored modifications, except changes required to correct safety hazards, shall be subject to approval by the Government prior to commencing the modification.

3.4. Transportability. System components and interconnecting cables shall be designed for ease of disassembly and reassembly at another location within the same building and for portability to remote locations.

3.5. Installation Schedule. For the initial quantity of equipment, the Contractor shall provide a final approved installation schedule for those sites specified in Appendix III. The schedule shall be provided to the Contracting Officer's Representative (COR) within 30 days after contract award.

4. Functional/System Hardware Requirements.

4.1. Microprocessor Audiometer (MA) Requirements (CLIN 0001). The MA shall be fully responsive to this specification and be capable of performing its full range of capabilities with the particular microcomputer provided by the Government. Response time must be compatible with the full family of computers utilizing the MA, i.e., 486 and/or pentium processors. Specific versions of the software are required for Microsoft DOS, Windows 95 and NT. The Windows 95 software version, including device drivers, must meet Microsoft's NT certification specifications and be certified by Microsoft. The MA shall comply with Microsoft's "Plug and Play" standards for equipment interoperability. The MA will be evaluated for performance with specific attention to the interface application between the MA, the microcomputer and its graphical user interface (GUI). The Contractor shall furnish a multi-station (one-to-eight audiometer boards) MA consisting of compatible connecting cables and software interfaces; one additional noiseless and repairable hand switch and one additional set of earphone cords for each single audiometer board

or for every two audiometer boards of a multi-station MA; and an extra microphone shall also be provided with each MA. The one- and two-station MAs shall be expandable to at least a four-station MA.

4.2. Specific MA Requirements.

4.2.1. Equipment Features. The MA shall possess the following minimum equipment features/characteristics:

4.2.1.1. Weight. The MA, and the subassembly and rack, if applicable, together shall not exceed 10 lbs., keeping it comparable to laptop size.

4.2.1.2. Circuit Board. The MA circuit boards shall have the capability of being plugged into a subassembly on a rack. Circuit boards shall have a fiberglass base and an anti-fungus coating. Electronic circuit boards shall be keyed to prevent incorrect orientation, i.e., circuit boards shall be designed so that they cannot be inserted into the wrong circuit or chassis.

4.2.1.3. Multi-User Environment. The MA shall be expandable to provide for operations supporting up to eight (8) MA stations simultaneously. Synchronization of multi-test stations is not required.

4.2.1.4. Interfacing. All interfacing hardware, software, firmware, cabling and other materials necessary to attach the listed peripherals (Appendix II), and expand the MA stations, as indicated by the contract, shall be provided. All interfaces to the computer shall be through RS-232C serial communication ports. The RS-232C cable shall be 10' (feet) and attach to the MA and PC through the use of thumb screws.

4.2.1.5. Earphones. Earphones shall be repairable and provided for each station and shall be Telephonics TDH-39/49, 10 ohm earphones in MX41/AAR ear cushions. For the Army and the Air Force, cushions shall be mounted within noise-attenuating circumaural earphones with ear cushions that exert pressure against the external ear. Earphone headband suspension systems shall be spring steel bands with fabric padding. Wire "coat hanger" suspension systems are not acceptable. A built-in safety feature should be part of the headphones so they turn off when the audiometer is turned on, e.g., at the beginning of the test day, after a power failure, etc. Use of this feature would repress a possible squelch from coming through the headphones which could cause listener discomfort and/or a temporary shift in the listener's hearing.

4.2.1.6. Multiplexer. The multiplexer, if used, shall link to the controller with a standard communications port.

4.2.1.7. Code Conformance. All equipment shall conform to the National Electric Code (ANSI/NFPA 70-1993), the National Electrical Safety Code (C2-1993), the Federal Communications Commission (FCC) regulations, and the American National Standard Institute (ANSI) S3.6-1989, "Specifications for Audiometers", as applicable.

4.2.1.8. Mounting Brackets (CLIN 0004). Due to the conditions under which ships and mobile vehicles operate, specified system components will include mounting brackets and bolts to firmly fasten the MAs in place to resist shifting under emergency maneuver conditions. The MA will be attached by brackets to work surfaces, deck plates, bulkheads, etc. The MA mounting brackets shall not interfere with normal operation of the equipment. The MA shall be removable from the mounting brackets, using normally available hand tools. If removed from the mounting brackets, the MA shall remain fully functional as an unmounted MA. The Government installers will drill holes in the mounting surfaces as required to install the equipment. The Contractor shall provide all hardware (brackets, bolts, nuts, etc.) For securing the equipment. All brackets shall be pre-drilled for mounting purposes.

4.2.1.9. MA Internal Hardware/Software Modification and Maintenance. The MA internal hardware switches shall be configurable through software. All internal MA software (firmware) shall be software upgradeable through GFE.

4.2.1.10. Year 2000 Date Requirement. The Contractor warrants fault-free performance in the processing of date and date related data (including, but not limited to, calculating, computing, and sequencing) by all hardware and software products delivered under this contract, individually and in combination, upon installation. Fault-free performance includes the manipulation of this data with dates prior to, and beyond, 1 January 2000, and shall be transparent to the user. Hardware and software products, individually and in combination, shall successfully transition into the year 2000 with the correct system date, without human intervention, including leap year calculations. Hardware and software products, individually and in combination, shall also provide correct results when moving forward or backward in time across the year 2000.

4.2.2. Performance Characteristics. Additionally, the MA shall exhibit the following performance characteristics:

4.2.2.1. Stimulus Features.

4.2.2.1.1. Test Frequencies. The test frequencies shall include 500, 1000, 2000, 3000, 4000 and 6000 hertz (Hz) presented in the automatic mode, beginning with the left ear at 1000 Hz, then testing 500 Hz, then completing a 1000 Hz retest followed by testing 2000 - 6000 Hz. The same testing procedure shall then be followed in the right ear. A selectable "right ear first" option will be available for each test station. An additional option to test 8000 Hz, in either ear, must also be available.

4.2.2.1.2. Intensity Range. The intensity range shall extend from -10 decibels (dB) hearing threshold level (HTL) to 100 dB HTL. Attenuation will occur in 5 dB steps. The intensity range shall not exceed 100 dB HTL.

4.2.2.1.3. Frequency Accuracy. There shall be better than one percent (1%) deviation from the crystal controlled timer.

4.2.2.1.4. HTL Accuracy. Less than plus or minus 1 dB.

4.2.2.1.5. Test Signal. The test signal shall be a pulsed tone with a selectable "continuous tone" option for each test station. The stimulus should continue until indicated by the examiner through the use of the Pause or Reset features of the software. This will keep the listener occupied when testing in a multi-test environment.

4.2.2.1.6. Tone Character. The presentation of the tone shall be 0.2 second on and 0.2 second off for the pulsed tone mode, i.e., a fifty percent (50%) duty cycle with three pulsed tone presentations and a 1.2 second duration for a continuous tone. Rise and decay times are 35 milliseconds (msec) or within the requirements for tone switches in ANSI S3.6-1989.

4.2.2.1.7. Harmonic Distortion. Total harmonic distortion shall not exceed three percent (3%) as specified in ANSI S3.6-1989.

4.2.2.1.8. Interstimulus Interval. There shall be random interstimulus intervals with periodic increased intervals (0.75 second minimum and 5 second maximum) throughout the test cycle.

4.2.2.1.9. Amplitude Linearity. The amplitude linearity shall be no greater than 1 dB for every 10 dB increment with a maximum accumulated error of 2 dB or less relative to the calibration level.

4.2.2.1.10. Threshold Determination (Validation). The threshold shall be determined by the lowest level at which a response occurs in at least one-half of a series of ascending trials, with a minimum of two out of three responses, or two consecutive responses, at a single level. The stimulus presentation will start at 30 dB HTL at 1000 Hz and increase by 20 dB HTL until a response is obtained, the initial response will then be confirmed, then the modified Hughson-Westlake procedure (down 10 dB, up 5 dB) will begin. The next frequency search will begin at the intensity of the previous test frequency threshold. When changing test ears the first presentation will be at 30 dB HTL.

4.2.2.1.11. Threshold Entries. The MA will automatically enter the HTLs for the current audiogram and the date of the current audiogram, upon completion of the test. If applicable, the amount of threshold shift for 1000 - 4000 Hz and the presence of significant threshold shift will also be automatically entered. STS is identified as an average change of > plus or minus (+/-) 10 dB at 2000, 3000 and 4000 Hz, in either ear, or a change > +/- 15 dB at 1000, 2000, 3000 or 4000 Hz, in either ear. Entries will range from -10 to 100, in multiples of 5; "NR" will be entered if no response is obtained at the maximum output of the audiometer. An "M" will be printed after every manually entered threshold.

4.2.2.1.12. Response Window. The response window shall begin 50 msec after the onset of the test signal or pulse train and end, as a minimum, 10 to 20 msec before the onset of the next test signal. The test signal shall stop as soon as the hand switch response button is pressed. Total response window shall be 1.8 seconds after initial tone presentation at each frequency.

4.2.2.1.13. Test Reliability. Dependent on time locked, consistent response.

4.2.2.1.14. Test Time. The MA must be able to perform the following functions in 10 minutes or

less for one listener: assignment of the test station, determination of the HTLs for all test frequencies, including automatic retests, and printing the completed DD Form 2215 (Attachment 1) or DD 2216 (Attachment 2), without follow-up hearing tests. Time requirements will be evaluated with listeners from the Government, who have normal hearing (25 dB HTL or less at 500 - 6000 Hz). The Contractor shall provide the audiometric technician. An eight-person unit must be able to accomplish the same tasks, testing eight listeners simultaneously, under the same conditions listed above, in 15 minutes or less. The time of day the test is provided is also required.

4.2.2.2. Automatic Retest. At the completion of the test an automatic retest (without operator intervention) will be performed if:

- a. A threshold change of +/- 15 dB HTL or greater occurs at any frequency, during testing, as compared to the reference;
- b. Any frequency has an HTL of 90 dB or greater;
- c. There is an HTL difference of 40 dB or more between ears at the same frequency.
- d. The HTL at 500 Hz is greater than 30 dB. This will not occur with the Biological Calibration Check.
- e. There is a difference of 50 dB or greater for an adjacent frequency.
- f. An HTL is not validated due to inconsistent responses, e.g., the hand switch button is continually depressed or is not pressed when tones are presented.

4.2.2.3. Fault Codes. A Fault Code (Appendix IV) is an immediate warning (an on-screen visual and auditory signal; the intensity of the auditory signal is controlled via hardware or software), given to the technician when:

- a. A listener response is not obtained for the first ear tested at 1000 Hz.
- * b. There is no validation for the first test ear response at 1000 Hz.
- + c. The first ear fails the 1000 Hz retest, i.e., the HTL is not within +/- 5 dB of the initial HTL.
- d. There is no release of the hand switch button.
- e. More than one response per frequency is given without additional tone presentations.
- f. The retest did not validate the HTLs at the required one or two frequencies. A maximum of 20 tone presentations or 60 seconds shall be allowed at each test frequency.

g. There is no validation of the HTLs at three frequencies.

* At 1000 Hz, in the first test ear, too much time has elapsed without achieving threshold validation.

+ Validity Check - Each ear is tested twice at 1000 Hz and the thresholds must agree within +/- 5 dB. If agreement is achieved, the lower of the two threshold levels is retained. If agreement is not achieved, the test is stopped; the technician is summoned; and the entire test is repeated.

4.2.2.4. Manual Test Mode. The MA shall have a manual test option to enable the technician to present tones in selected frequency intervals and decibel levels. The manual test mode will not allow for the acceptance of fewer HTL responses than the automatic test mode, as identified in paragraph 4.2.2.1.10.

4.2.2.5. Display. The display shall allow visual monitoring of the test, while it is in progress and when it is completed, for each individual station. The frequency and intensity display shall indicate the Fault Codes for each station with appropriate instructions (Appendix IV) to the operator for counseling the listener (see paragraph 4.2.2.3 above). In addition, a voice chip interface will provide the listener with instructions for the appropriate Fault Code or standard instructions for taking a hearing test (Appendix IV). Use of voice communication is an option which will be activated by the operator.

4.2.2.5.1. Hearing Test Screen Display. The MA hearing test screen display must show all stations currently in use and their corresponding listener station assignments. Threshold searches, for each frequency and each listener, should be displayed on the screen. Alternating, or all unique, colors must be used for each different listener on the same screen. Additional required on-screen features include: help and referral instructions, error codes, and function keys, if applicable.

4.2.2.6. Control Keys. Control keys, which operate the MA as an alternative to the graphical user interface (GUI), shall be clearly identified. As a minimum, the following test functions should be available:

- a. Start - begins a hearing test.
- b. Resume - continues a test from the point where it was interrupted. The technician will be able to restart the paused test using no more than a two key entry.
- c. Restart - starts the test over from the beginning.
- d. Reset - deletes the current test information from the assigned test station, clearing the test station, clearing the test station for the next listener.
- e. Talk over (Individual) - pauses the test while an individual listener is given instructions from the technician or the software.
- f. Talk over (Group) - pauses the test while all listeners are given instructions from the technician or the software.
- g. Print - prints the test after it has been saved in the database.

4.3. MA Calibration. The Contractor shall provide an MA which is capable of being calibrated by existing Government calibration personnel. Calibration and signal-to-noise ratio shall be in accordance with the American National Standard Institute, S3.6-1989. The MA board must be removable for ease of calibrating.

4.3.1. Acoustical Calibration Mode. Calibration of the earphones shall be controlled by the software through the use of the mouse or keyboard. The frequency shall require no adjustment. The calibration routine shall appear on the screen with instructions and the ability to set the output level for the earphones at the keyboard. In addition, a calibration service switch shall be provided, changing the signal to a 70 dB continuous tone beginning at 500 Hz with subsequent manual frequency and earphone selections. Right and left earphones shall be individually calibrated. Software programs for acoustical calibration shall be provided. Electroacoustic calibration of firmware will be performed by keyboard via software. The calibration date, in YYMMDD format, is to be entered at the time of calibration as a mandatory requirement to exit the calibration software. Entry into the calibration mode is to be limited with password protection.

4.3.2. Biological Calibration Mode. A biological calibration check shall be controlled by the MA. Multi-station systems shall permit more than one listener to check the MA stations at the same time. An electronic calibration monitor (CLIN 0002) will be provided to each test site to check the acoustic output of each test station for 500 - 6000 Hz inclusive. The output for each frequency must be repeatable within +/- 5 dB of established threshold reference levels. The biological calibration results shall be printed in the appropriate entry blocks on DD Form 2217, Biological Audiometer Calibration Check (Attachment 3).

4.3.3. Functional Check. The MA shall include a functional check which will involve a sequence of tone presentations for both earphones. The MA will initiate and present tones of 500 Hz, 1000 Hz, 2000 Hz, 3000 Hz, 4000 Hz, 6000 Hz and an optional 8000 Hz at 60 dB in the left ear and then switch to the right ear. In the right ear, the MA will present a 1000 Hz tone descending in 10 dB increments from 70 dB HTL to 0 dB HTL. The technician will be able to repeat any tone presentation by pressing the hand switch button and may terminate the functional check by pressing "X" to exit.

5. Microprocessor Audiometer Interface Software (CLIN 0003). The characteristics set forth below represent the minimum requirements for the software interface program required for the efficient operation of the MA and the DOD HEARS.

5.1. Operating Program (O/P) Software. The following specific O/P interface software shall be operational with the GFE operating system provided and with Windows 95, Windows NT and DOS. Separate Windows 95, Windows NT and DOS software interfaces are required.

5.1.1. Input/Output (I/O) Control. The O/P shall provide I/O control. It shall support all of the application software required for DOD HEARS as described herein.

5.1.2. Access. Access to the operating program shall be by password. All data and software

shall reside on the hard disk. The MA interface program shall be Windows compatible.

5.1.3. Transfer Between Software Options. The transfer between software options shall be technician driven to include an exit to the native operating system.

5.1.4. Source Code. The Government shall acquire unlimited rights in all software and technical data developed under this contract. The Contractor shall provide a copy of the software program in source code in both machine readable and printed form with full documentation to include all schematics and annotations that constitute the program design specifications, as well as all other material necessary to allow a reasonably skilled programmer or analyst to maintain or enhance the program without the help of any other person or reference to any other material. All of the above shall be suitable for reproduction.

6. Environmental/Installation /Site Requirements.

6.1. Temperature/Humidity. All offered MAs shall be rugged and durable for operation under harsh environmental conditions. The MA shall be capable of operating in full compliance with all technical specifications within a temperature range of 50 to 90 degrees Fahrenheit and within a relative humidity range of 20 to 80 percent, noncondensing.

6.2. Electrical Power. The offered MA shall be operational under various 110/220 power sources. The MA will operate in accordance with the following standards:

(a) Continental United States (CONUS) - from Table 1 of ANSI C84.1-1989.

- (1) Nominal:** 120v, single phase, three wire with insulated ground wire.
- (2) Frequency:** 60 Hz plus or minus one percent (1%).

(b) Outside Continental United States (OCONUS) - where 220v power is provided, transformers will be furnished by the Government to reduce voltage to 110v, if necessary.

(1) Belgium.

Nominal: 127v, single phase.

Frequency: 50 Hz plus or minus one percent (1%).

(2) Germany.

Nominal: 220v, single phase.

Frequency: 50 Hz plus or minus one percent (1%).

(3) Italy.

Nominal: 220v, single phase.

Frequency: 50 Hz plus or minus one percent (1%) and 60 Hz.

(4) Japan.

Nominal: 110v, single phase (220v also available).

Frequency: 50 Hz plus or minus one percent (1%) and 60 Hz.

(5) Korea.

Nominal: 100v, single phase (200v also available).

Frequency: 60 Hz plus or minus one percent (1%).

(6) Turkey.

Nominal: 220v, single phase (380v also available).

Frequency: 50 Hz plus or minus one percent (1%).

(7) Spain.

Nominal: 110v.

Frequency: 60 Hz

(8) Cuba.

Nominal: 110v

Frequency: 60 Hz

(9) Iceland.

Nominal: 110v

Frequency: 60 Hz

(10) Guam.

Nominal: 110v

Frequency: 60 Hz

(11) Puerto Rico.

Nominal: 110v

Frequency: 60 Hz

(12) Diego Garcia.

Nominal: 110v

Frequency: 60 Hz

(13) United Kingdom.

Nominal: 110v or 220v

Frequency: 60 Hz or 50 Hz

(14) Panama.

Nominal:

Frequency: 60 Hz

(15) Portugal.

Nominal:

Frequency: 60 Hz

7. Support Requirements.

7.1. Training Requirements (CLIN 0005).

7.1.1. General. On an optional requirements basis, the Contractor shall be prepared to provide a comprehensive training class for each site receiving a MA. The Government reserves the right to order training in accordance with either of the following two methods:

(1) Training may be ordered concurrently with MA installation on the same delivery order. In this case, training shall commence immediately upon successful installation of the MA.

(2) Training may be ordered separately from the MA installation. In this case, training shall commence in accordance with the date specified on the delivery order.

(3) The Contractor shall assume that the users have little or no prior MA knowledge when presenting the necessary training.

7.1.2. Training Description. The training program shall include a complete description of the MA's capabilities and functions as well as a familiarization with the operational procedures of the interface software, calibration and maintenance procedures. A combination of hands-on and classroom training at the Government's site shall last a minimum of one (1) working day (8 hours), exclusive of installation and test time. The Contractor shall, as a minimum, be required to provide training to at least one (1) person per site, per installed MA, with no more than three (3) students per MA. All training shall be conducted by experienced and competent personnel. Training for Calibration/Maintenance personnel will also be provided, lasting a minimum of one (1) working day (8 hours).

7.1.2.1. Training Materials. The Contractor shall provide training materials for one (1) student per installed MA. Training materials shall be provided in hard copy and CD-ROM or diskette format, depending on the needs of the particular site.

7.1.2.2. Auditing Training Sessions. By mutual agreement of the installation Hearing Conservation Officer (HCO) and the Contractor, additional Government personnel may "audit" the course, however no training materials and/or "hands-on" time will be provided.

7.2. Documentation Requirements (CLIN 0006).

7.2.1. Manuals. Readability of material must be a primary concern/focus. For each delivered system, the Contractor shall furnish two Operator and Service Manuals in hard copy and CD-Rom format. One manual will cover operator/user information and the other manual will cover maintenance and service information. As a minimum, the manuals shall contain:

(1) Step-by-step procedures and illustrations showing the proper connection of the MA to other equipment, i.e., the test booth, the computer.

- (2) Safety considerations for operating and servicing the MA.
- (3) Technical performance specifications of the MA.
- (4) Complete instructions for installing, operating, adjusting, aligning, calibrating, maintaining and repairing the MA.
- (5) Detailed instructions on the use and operation of any MA diagnostics including error explanations.
- (6) Wiring and electrical schematic diagrams for all electrical items or components.
- (7) Instructions for use of all provided software.

7.2.2. Index. Manuals shall be suitably indexed to permit ready reference for required information.

7.2.3. Table of Contents. The Table of Contents must correlate with the presented information and the information in the manual(s) shall correlate with the screen displays explained in the manual(s).

7.2.4. Service Data. All diagrams, drawings and service data shall include adequate information so that replacement and repair parts can be ordered by a manufacturer's part number.

7.2.5. Reproduction of Documentation. The Contractor shall permit the Government to make copies of all furnished documentation for Government Use Only.

7.2.6. Programmer Material. The Contractor shall provide complete programmer reference documentation describing all features and capabilities of the Contractor-supplied software, hardware and firmware. It is required that the Contractor provide on-line programmer material for assistance in interpreting diagnostic and error messages and assistance in problem determination and program debugging.

7.3. Installation (CLIN 0007). On a requirements basis, the Contractor may be directed to install all MAs delivered under this contract to any of the sites specified in Appendix III, as well as to any newly identified sites.

7.3.1. Installation Requirement. The MA installation shall not commence until all MAs and required components have been delivered to the site.

7.3.2. Notification. The Contractor shall certify in writing that each is installed and ready for test and use. The DD Form 1149, Requisition and Invoice/Shipping Document, will be provided at the time of installation and a signed copy acknowledging receipt will be returned within 14 calendar days to the COR. Following successful installation, acceptance testing as specified on page 26, paragraph 3.3, will be performed on each delivered system.

7.3.3. Initial Calibration. The MA installation support shall include an initial MA calibration in accordance with the specifications contained in paragraph 4.3. Additionally, the Contractor shall provide the Government with a certificate of calibration performed in accordance with the manufacturer's specifications.

7.3.4. Jack Boxes and Wiring. The Government will provide operational jack boxes and wiring in booths for this installation effort. Electronic connector cables provided by the Contractor, must be state-of-the-art and designed so that insertion into the wrong circuit or chassis is eliminated. Plugs for MAs scheduled for installation in military occupational health vehicles (MOHVs) or mobile hearing conservation audiometric test vehicles (MOHCATs) shall be binaural type plugs for earphones and monaural type plugs for hand switches. Only two jacks will be provided at each of the four to six test stations in the MOHVs/MOHCATs. The Contractor shall modify the MA wiring and plugs to accommodate the jack configurations found in all other audiometric examination booths.

7.4. Maintenance. The Contractor shall not be required to provide direct hardware maintenance support except as indicated below:

7.4.1. Warranty Period Maintenance Service. The Contractor's warranty maintenance/service support shall provide for all parts, service, labor, travel time and expense to perform both preventive and corrective maintenance at no additional charge to the Government. This support will include on-site personnel if the Contractor chooses. Warranty services shall be available during each site's normal duty hours, Monday through Friday, excluding Government holidays.

7.4.2. Field Replacement. Each individual MA station shall be capable of field replacement by program control (PC) board or component with calibrated earphones.

7.4.3. Maintenance Diagnostics. Maintenance software or firmware shall be provided to verify, as a minimum, that hardware components are functional and generate messages to indicate maintenance procedures to be followed in identifying a problem. Maintenance procedures (see maintenance manual) shall identify equipment malfunction to the major MA component level.

7.5. Delivery.

7.5.1. General. The Contractor shall coordinate and effect delivery of all system components, software and documentation to each of the designated sites specified on page 30, paragraph 2. Military shipping channels are to be the primary means of delivery, when possible.

(1) For CONUS Sites. Delivery shall be made directly to the shipping points specified in Appendix V.

(2) For OCONUS Sites. The Contractor shall deliver directly to either the West Coast or East Coast Ports of Embarkation identified on page 30, paragraph 2.2.

7.5.2. Government Delivery Schedule. All Government furnished software and ADPE specified

in Appendix II will be delivered to each MA site so as to accommodate the Contractor's approved installation schedule.

1. Place of Inspection and Acceptance.

1.1. CONUS deliveries will be inspected for transit damage at the specified delivery point (Appendix V). Actual inspection and acceptance will take place at the audiometer site(s) (Appendix III) in accordance with the procedures contained in this section.

1.2. OCONUS deliveries will be inspected at the designated Port of Embarkment.

1.3. All items rejected during inspection and returned to the Contractor will be accompanied by a written notice of rejection stating the reasons for rejection.

1.4. Acceptance testing at audiometer sites will commence within 90 days from date of receipt at the point of destination. However, if due to Government delay, acceptance testing cannot begin on or before the 90th day, the equipment so effected will be considered accepted.

2. Contractor Certification.

Whenever Contractor installation is required, the Contractor shall certify in writing that the MA and interface software is installed and ready for Use and Acceptance Testing, and that all equipment complies with the manufacturer's specifications and with all technical requirements of this contract. This confirmation shall not lessen the Governments' right to inspect and accept or reject the installed equipment.

3. Standard of Performance and Acceptance of Equipment.

To be acceptable, all equipment furnished must meet the "Standard of Performance" cited in paragraph 3.2 below. Replacements, augmentation and substitute components which are added or field modified after a successful performance period on the initial installation, shall also meet the acceptance criteria specified below.

3.1. Performance Period. The performance period for the Acceptance Test shall begin at a date selected by the Government within 90 days following completion of installation.

3.2. Standard of Performance. To be acceptable, the system (hardware, firmware and software interface) shall operate to the manufacturer's specifications and be capable of demonstrating compliance with all functional requirements of this specification.

3.3. MA Acceptance Test (MAAT). Acceptance of the MA will be on a pass/fail basis, and the following capabilities must be demonstrated satisfactorily during the acceptance test period. Functional tests shall verify settings and readings over the full range of MA capabilities. Tests shall be conducted only on a complete integrated system.

3.3.1. Functional Goal of the MAAT. To demonstrate that the proposed MA and software interface achieves the functional goals specified in the requirement. Other tests deemed necessary shall be conducted for the sole purpose of verifying that design and performance characteristics of the integrated system satisfy the requirements of the specification.

3.3.2. Contractor Responsibility. The Contractor shall be responsible for conducting the system

testing and resolving any and all problems to the satisfaction of the Government prior to MA acceptance. Live data will be used throughout the test.

3.3.3. System Failure/Non-Compliance. If, in the opinion of the Government, any component of the MA fails to comply with the functional requirements as specified by the contract, a formal notification of non-compliance will be prepared and provided to the Contractor. The Contractor will attempt to resolve the problem(s) identified in the notification to the satisfaction of the Government within 30 days of such notification, with no downtime. If downtime occurs, the acceptance test time frame starts again from the time the problem(s) is resolved. Failure to resolve any problem to the satisfaction of the Government will be grounds for non-acceptance and/or termination of the contract by the Government. Failure and/or non-acceptance by the Government of any Contractor supplied MA component shall be deemed grounds for non-acceptance and/or termination of the contract by the Government. The Government is responsible for correcting problems associated with normal operation of Government-furnished ADPE. An extension of the Acceptance Test Period shall not alter the Government's other options if performance continues to fail to meet the required effectiveness level.

3.4. Maintenance, Service and Parts. Maintenance, service and parts shall be furnished by the Contractor without additional charges during the Acceptance Test period unless such service and parts are required due to willful misconduct of the Government.

3.5. Cost of Transportation of Replacement Equipment. The Contractor shall bear the cost of transportation whenever equipment is subject to mechanical replacement unless the replacement is required due to negligence of the Government.

3.6. Installation Date and Start of Acceptance Test. Equipment shall not be considered "ready for use" and the formal Acceptance Test specified in paragraph 3 above shall not begin until:

a. All supplied interface software is successfully installed and is fully operational.

b. The Contractor has notified the Government, in writing, at least seven (7) working days in advance of when the system, including the interface to Government-owned equipment will be ready for use. See also paragraph 3.1 above.

3.7. Acceptance Criteria.

3.7.1. The system must meet the requirements of the contract specifications prior to Government acceptance.

3.7.2. Minor discrepancies not affecting actual normal performance, which are discovered during the Acceptance Period will not be charged to down-time if satisfactorily corrected by the Contractor within five (5) working days after notification. Also, use of the MA during the period between completion of installation and the end of Acceptance Testing shall not negate the right on the part of the Government to reject the MA, should it fail, nor preclude default action against the Contractor in the event of failure to correct reported deficiencies.

3.7.3. In the event the MA is rejected, the Contractor will be advised as to the deficiencies which were cause for rejection. It shall be his responsibility to advise the Contracting Officer of proposed actions to accomplish correction of the reported defects. The Contracting Officer shall decide if the proposed correction will be allowed, considering time frames for corrections. If correction is authorized, it will be the responsibility of the Contractor to advise the Contracting Officer when all corrections have been made and the equipment is again ready for Acceptance Testing. Reinspection will be performed by the Government with all costs incurred, chargeable to the Contractor's account.

3.8. MA Components Subject to Test and Evaluation by the Government.

- a. Microprocessor Audiometers.
- b. Contractor supplied interface software.
- c. Interface mechanisms (hardware, software, firmware, communications), provided by the Contractor, between the MA and the GFE.
- d. User/operator training packages, hard copy, diskette and CD-ROM copies, provided by and/or ordered by the Contractor, if ordered.

4. System Acceptance Test Reporting Procedures. The Government will document all MA failures, non-compliance or problems encountered during the MAAT. Documentation will include a detailed description of the problem, the date, the time of occurrence and any actions taken by the operator and/or the Contractor. A copy of each failure report will be provided to the Contractor, Contracting Officer and COR. Likewise, all actions, modifications, and/or repairs made by the Contractor, during the MAAT, will be documented and provided to the individuals stated above.

5. Date of Acceptance. No equipment will be accepted and no payment will be made until the Performance Standard is met for the entire supply of MAs at each site.

6. Definitions (Applicable to Inspection and Acceptance Only).

6.1. Average Effectiveness Level. For the purpose of the Acceptance Test, the Average Effectiveness Level shall be computed for the Contractor furnished MA as follows:

$$\text{Effectiveness Level} = \frac{\text{Operational Use Time}}{\text{Scheduled Use Time}} \times 100\%$$

6.2. Operational Use Time. For the purpose of the Acceptance Test, Operational Use Time is the time during which the contractor-furnished MA is actually available for productive work. Operational use time is measured as the scheduled use time less downtime.

6.3. Scheduled Use Time. For the purpose of the Acceptance Test, the Scheduled Use Time is the time during which the contractor-furnished MA is scheduled by the Government for operational use. During the Performance Period, the only time periods which will be excluded

from the Scheduled Use Time will be those periods scheduled for preventive maintenance and those periods during which the Government chooses not to operate the MA.

6.4. Downtime. For the purpose of the Acceptance Test, Downtime is that time during which the contractor-furnished MA is inoperable due to a malfunction of some element, either hardware, software and/or firmware for the MA. Therefore, the MA cannot perform to the manufacturer's specifications, and is not in compliance with the requirements of this specification. The determination of Downtime will be made solely by the Government. Downtime for each failure shall start at the time the Government first makes a bona fide attempt to notify the Contractor of a failure and shall run until the failed MA(s) is (are) returned to the Government in a condition that it performs in accordance with the manufacturer's specifications and it also performs in compliance with this specification. Software deficiencies will be considered corrected when, through the use of generally accepted programming techniques, i.e., corrective code or implementation of procedural changes, productive work is resumed.

6.5. Measurement of Time. In the Effectiveness Level computation, Time shall be measured to the nearest whole minute.

6.6. Minimum Operational Use Time. During the Performance Period, a minimum of 40 hours of Operational Use Time with productive or simulated work will be required as a basis for computation of the MA Effectiveness Level. However, in the sole opinion of the Government, a lesser time may be considered adequate to demonstrate acceptability of a MA. In computing the Effectiveness Level, the actual number of operational hours will be used.

7. Formal Acceptance. Formal acceptance of the MA and services by the Government, upon successful completion of the Inspection and Acceptance Tests specified in the preceding paragraphs, will be acknowledged on the face of the required Material Inspection and Receiving Report, DD Form 250. No payment will be made under this contract on delivered equipment or services without formal acceptance being made by a duly authorized representative of the Government, acknowledging such acceptance by his signature on the face of the above referenced DD Form 250.

8. Acceptance By. All equipment and services due under this contract will be accepted by the Contracting Officer's Representative (COR) or Alternate.

Deliveries or Performance.

1. **General.** All MAs, software and documentation to be delivered under this contract shall be shipped Freight on Board (FOB). The Contractor shall have total responsibility for shipment of items to the CONUS shipping point or to the Port of Embarkation, as appropriate. Military shipping channels are to be used where possible. The Government shall assume the responsibility for arranging delivery from the overseas Port of Entry to the installation site(s) specified in Appendix III.

2. **Place of Delivery.**

2.1. **CONUS Points of Delivery.** The Contractor shall deliver the specified quantity of deliverables, in accordance with the Regional Priorities, to be provided after award of the contract, as indicated in Appendix V. No deliveries shall be made to any regional site until all deliveries have been made to the region in the preceding priority. However, the Contractor is free to make deliveries to any shipping point in any order, within a specific region.

2.1.1. For transportation purposes only, deliveries marked for the Panama Health Service Area shall be delivered to the East Coast Port of Embarkation (see paragraph 2.2.a.). Transportation Control Numbers (TCN #) will be provided by the Government prior to scheduled shipping dates.

2.2. **Overseas Points of Delivery.**

a. **Ship To:**

East Coast Port of Embarkation.

1) **MIX:**

One-Station MAs
Two-Station MAs
Four-Station MAs
Six-Station MAs
Eight-Station MAs

2) **Mark For:**

West Coast Port of Embarkation.

1) **MIX:**

One-Station MAs
Two-Station MAs
Four-Station MAs
Six-Station MAs
Eight-Station MAs

2) Mark For:

3. Delivery Requirements - Required Delivery Date (RDD). All items to be delivered and all services to be performed under this contract shall be provided in accordance with the following schedule:

3.1. Delivery Requirement. All system components (hardware, software and documentation - CLINS 0001, 0002, 0003 and 0006, and 0004, if applicable) shall be delivered to the specified addresses (see paragraph 2 above) within 30 days from the execution of a delivery order. It is anticipated that no more than 300 MAs will be ordered in a given month.

3.2. Documentation (CLIN 0006). Two copies shall be delivered for each MA to each place of installation. In addition, two copies shall be delivered to both: (1) Commander, U.S. Army Center for Health Promotion and Preventive Medicine, 5158 Blackhawk Road, ATTN: MCHB-DC-CHC, Aberdeen Proving Ground, MD 21010-5422 and (2) Commander, USAMMA, Fort Detrick, Building 1423, Frederick, MD 21702-5000.

3.3. Order on Requirements Basis (CLINS 0001, 0002, 0003 and 0006, and 0004, if applicable). For systems (hardware, software and documentation) ordered on a requirements basis, the Contractor shall deliver the ordered quantity (IAW the ordering provisions) within 30 days of the effective date of a signed delivery order.

3.5. Installation (CLIN 0007). Installation support may be required at any of the sites specified on the schedule.

CONUS and OCONUS Sites. If ordered at the same time as the hardware, software and documentation, the Contractor shall provide installation support in accordance with the approved Installation Schedule required by specification/work statement paragraph 7.3. If ordered separately, the Contractor shall perform in accordance with the date specified in the order.

4. Software and Documentation Delivery. All software, hardware and documentation shall be delivered concurrently with delivery of the MA.

5. Transportation.

5.1. All transportation rigging, drayage and packing shall be the responsibility of the Contractor. Offers submitted on the basis other than FOB Destination may be rejected as being not technically acceptable.

5.2. On the earliest possible date, the Contractor shall inform the using activity of the date of shipment from the Contractor's facilities, and the anticipated date of arrival at the delivery site. These reports of shipment shall be made no later than the actual date of shipment from the Contractor's facilities. Reports shall be made by telephone or in writing and shall include the name of the carrier and the loading document number.

6. Notice Regarding Late Delivery. In the event the Contractor anticipates difficulty in complying with the contract delivery schedule, the Contractor shall immediately notify the Contracting Officer in writing, giving pertinent details, including the date by which it expects to make delivery. This data shall be informational only and receipt thereof shall not be construed as a waiver by the Government of any contract delivery schedules, or any rights or remedies provided by law or under this contract.

252.227-7015 Technical Data—Commercial Items.**TECHNICAL DATA—COMMERCIAL ITEMS (JUN 1995)****(a) Definitions.**

As used in this clause:

(1) "Commercial item" means—

- (i) Any item, other than real property or computer software, that customarily is used by the public for nongovernmental purposes and that—**
 - (A) Has been sold, leased, or licensed to the public; or**
 - (B) Has been offered for sale, lease, or license to the public;**
- (ii) Any item that evolved from an item described in paragraph (a)(1)(i) of this clause through advances in technology or performance and will be available in the commercial marketplace in time to satisfy the delivery requirements specified in this contract;**
- (iii) Any item that would satisfy a criterion expressed in paragraph (a)(1)(i) or (ii) of this clause, but for—**
 - (A) Modifications of a type customarily available in the commercial marketplace; or**
 - (B) Minor modifications made to meet Federal Government requirements;**
- (iv) Any combination of items meeting the requirements of paragraph (a)(1)(i), (ii), (iii), or (v) of this clause that are of a type customarily combined and sold in combination to the public;**
- (v) Installation services, maintenance services, repair services, training services, and other services if such services are procured for support of an item referred to in paragraph (a)(1)(i), (ii), (iii), or (iv) of this clause, and the source of such services—**
 - (A) Offers such services to the public and the Federal Government contemporaneously and under similar terms and conditions; and**
 - (B) Offers to use the same work force for providing the Federal Government with such services as the source uses for providing such services to the general public;**
- (vi) Services, offered and sold competitively, in substantial quantities, in the commercial marketplace based on established catalog prices for specific tasks performed under standard commercial terms and conditions;**

- (vii) Any item, combination of items, or service referred to in paragraphs(a)(1)(i) through (vi) of this clause notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a contractor; or
 - (viii) Other nondevelopmental items, if the Contracting Officer determines that the item was developed exclusively at private expense and has been sold in substantial quantities, on a competitive basis, to multiple state and local governments.
- (2) "Component" means any item supplied to the Government as part of an end item or of another component.
 - (3) "Contractor" includes the Contractor's subcontractors and suppliers at any tier.
 - (4) "Form, fit, and function data" means technical data that describes the required overall physical, functional, and performance characteristics (along with the qualification requirements, if applicable) of an item, component, or process to the extent necessary to permit identification of physically and functionally interchangeable items.
 - (5) The term "item" includes components or processes.
 - (6) "Minor modification" means a modification that does not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process.
 - (7) "Technical data" means recorded information, regardless of the form or method of recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.
- (b) *License.*
- (1) The Government shall have the unrestricted right to use, modify, reproduce, release, perform, display, or disclose technical data, and to permit others to do so. that—
 - (i) Have been provided to the Government or others without restrictions on use, modification, reproduction, release, or further disclosure other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the technical data to another party or the sale or transfer of some or all of a business entity or its assets to another party;
 - (ii) Are form, fit, and function data;
 - (iii) Are a correction or change to technical data furnished to the Contractor by the Government;
 - (iv) Are necessary for operation, maintenance, installation, or training (other than detailed manufacturing or process data); or

- (v) Have been provided to the Government under a prior contract or licensing agreement through which the Government has acquired the rights to use, modify, reproduce, release, perform, display, or disclose the data without restrictions.
- (2) Except as provided in paragraph (b)(1) of this clause, the Government may use, modify, reproduce, release, perform, display, or disclose technical data within the Government only. The Government shall not—
- (i) Use the technical data to manufacture additional quantities of the commercial items; or
 - (ii) Release, perform, display, disclose, or authorize use of the technical data outside the Government without the Contractor's written permission unless a release, disclosure or permitted use is necessary for emergency repair or overhaul of the commercial items furnished under this contract.
- (c) *Additional license rights.*
The Contractor, its subcontractors, and suppliers are not required to provide the Government additional rights to use, modify, reproduce, release, perform, display, or disclose technical data. However, if the Government desires to obtain additional rights in technical data, the Contractor agrees to promptly enter into negotiations with the Contracting Officer to determine whether there are acceptable terms for transferring such rights. All technical data in which the Contractor has granted the Government additional rights shall be listed or described in a special license agreement made part of this contract. The license shall enumerate the additional rights granted the Government in such data.
- (d) *Release from liability.*
The Contractor agrees that the Government, and other persons to whom the Government may have released or disclosed technical data delivered or otherwise furnished under this contract, shall have no liability for any release or disclosure of technical data that are not marked to indicate that such data are licensed data subject to use, modification, reproduction, release, performance, display, or disclosure restrictions.

(End of clause)

252.227-7028 Technical Data or Computer Software Previously Delivered to the Government.**TECHNICAL DATA OR COMPUTER SOFTWARE PREVIOUSLY DELIVERED TO THE GOVERNMENT (JUN 1995)**

The Offeror shall attach to its offer an identification of all documents or other media incorporating technical data or computer software it intends to deliver under this contract with other than unlimited rights that are identical or substantially similar to documents or other media that the Offeror has produced for, delivered to, or is obligated to deliver to the Government under any contract or subcontract. The attachment shall identify--

- (a) The contract number under which the data or software were produced;
- (b) The contract number under which, and the name and address of the organization to whom, the data or software were most recently delivered or will be delivered; and
- (c) Any limitations on the Government's rights to use or disclose the data or software, including, when applicable, identification of the earliest date the limitations expire.

(End of provision)

252.227-7030 Technical Data—Withholding of Payment.**TECHNICAL DATA—WITHHOLDING OF PAYMENT (OCT 1988)**

- (a) If technical data specified to be delivered under this contract, is not delivered within the time specified by this contract or is deficient upon delivery (including having restrictive markings not identified in the list described in the clause at 252.227-7013(k) of this contract), the Contracting Officer may until such data is accepted by the Government, withhold payment to the Contractor of ten percent (10%) of the total contract price or amount unless a lesser withholding is specified in the contract. Payments shall not be withheld nor any other action taken pursuant to this paragraph when the Contractor's failure to make timely delivery or to deliver such data without deficiencies arises out of causes beyond the control and without the fault or negligence of the Contractor.
- (b) The withholding of any amount or subsequent payment to the Contractor shall not be construed as a waiver of any rights accruing to the Government under this contract.

(End of clause)

VALIDATION OF RESTRICTIVE MARKINGS ON TECHNICAL DATA (JUN 1995)

(a) *Definitions.*

The terms used in this clause are defined in the Rights in Technical Data—Noncommercial Items clause of this contract.

(b) *Contracts for commercial items—presumption of development at private expense.*

Under a contract for a commercial item, component, or process, the Department of Defense shall presume that a Contractor's asserted use or release restrictions are justified on the basis that the item, component, or process was developed exclusively at private expense.

The Department shall not challenge such assertions unless information the Department demonstrates that the item, component, or process was not developed exclusively at private expense.

(c) *Justification.*

The Contractor or subcontractor at any tier is responsible for maintaining records sufficient to justify the validity of its markings that impose restrictions on the Government and others to use, duplicate, or disclose technical data delivered or required to be delivered under the contract or subcontract. Except under contracts for commercial items, the Contractor or subcontractor shall be prepared to furnish to the Contracting Officer a written justification for such restrictive markings in response to a challenge under paragraph (e) of this clause.

(d) *Prechallenge request for information.*

- (1) The Contracting Officer may request the Contractor or subcontractor to furnish a written explanation for any restriction asserted by the Contractor or subcontractor on the right of the United States or others to use technical data. If, upon review of the explanation submitted, the Contracting Officer remains unable to ascertain the basis of the restrictive marking, the Contracting Officer may further request the Contractor or subcontractor to furnish additional information in the records of, or otherwise in the possession of or reasonably available to, the Contractor or subcontractor to justify the validity of any restrictive marking on technical data delivered or to be delivered under the contract or subcontract (e.g., a statement of facts accompanied with supporting documentation). The Contractor or subcontractor shall submit such written data as requested by the Contracting Officer within the time required or such longer period as may be mutually agreed.

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- (2) If the Contracting Officer, after reviewing the written data furnished pursuant to paragraph (d)(1) of this clause, or any other available information pertaining to the validity of a restrictive marking, determines that reasonable grounds exist to question the current validity of the marking and that continued adherence to the marking would make impracticable the subsequent competitive acquisition of the item, component, or process to which the technical data relates, the Contracting Officer shall follow the procedures in paragraph (e) of this clause.
- (3) If the Contractor or subcontractor fails to respond to the Contracting Officer's request for information under paragraph (d)(1) of this clause, and the Contracting Officer determines that continued adherence to the marking would make impracticable the subsequent competitive acquisition of the item, component, or process to which the technical data relates, the Contracting Officer may challenge the validity of the marking as described in paragraph (e) of this clause.

(e) Challenge.

- (1) Notwithstanding any provision of this contract concerning inspection and acceptance, if the Contracting Officer determines that a challenge to the restrictive marking is warranted, the Contracting Officer shall send a written challenge notice to the Contractor or subcontractor asserting the restrictive markings. Such challenge shall—
 - (i) State the specific grounds for challenging the asserted restriction;
 - (ii) Require a response within sixty (60) days justifying and providing sufficient evidence as to the current validity of the asserted restriction;
 - (iii) State that a DoD Contracting Officer's final decision, issued pursuant to paragraph (g) of this clause, sustaining the validity of a restrictive marking identical to the asserted restriction, within the three-year period preceding the challenge, shall serve as justification for the asserted restriction if the validated restriction was asserted by the same Contractor or subcontractor (or any licensee of such Contractor or subcontractor) to which such notice is being provided; and
 - (iv) State that failure to respond to the challenge notice may result in issuance of a final decision pursuant to paragraph (f) of this clause.
- (2) The Contracting Officer shall extend the time for response as appropriate if the Contractor or subcontractor submits a written request showing the need for additional time to prepare a response.
- (3) The Contractor's or subcontractor's written response shall be considered a claim within the meaning of the Contract Disputes Act of 1978 (41 U.S.C. 601, et seq.), and shall be certified in the form prescribed at 33.207 of the Federal Acquisition Regulation, regardless of dollar amount.

(4) A Contractor or subcontractor receiving challenges to the same restrictive markings from more than one Contracting Officer shall notify each Contracting Officer of the existence of more than one challenge. The notice shall also state which Contracting Officer initiated the first in time unanswered challenge. The Contracting Officer initiating the first in time unanswered challenge after consultation with the Contractor or subcontractor and the other Contracting Officers, shall formulate and distribute a schedule for responding to each of the challenge notices to all interested parties. The schedule shall afford the Contractor or subcontractor an opportunity to respond to each challenge notice. All parties will be bound by this schedule.

(f) *Final decision when Contractor or subcontractor fails to respond.*

Upon a failure of a Contractor or subcontractor to submit any response to the challenge notice, other than a failure to respond under a contract for commercial items, the Contracting Officer will issue a final decision to the Contractor or subcontractor in accordance with the Disputes clause of this contract pertaining to the validity of the asserted restriction. This final decision shall be issued as soon as possible after the expiration of the time period of paragraph (e)(1)(ii) or (e)(2) of this clause. Following issuance of the final decision, the Contracting Officer will comply with the procedures in paragraphs (g)(2)(ii) through (iv) of this clause.

(g) *Final decision when Contractor or subcontractor responds.*

- (1) If the Contracting Officer determines that the Contractor or subcontractor has justified the validity of the restrictive marking, the Contracting Officer shall issue a final decision to the Contractor or subcontractor sustaining the validity of the restrictive marking, and stating that the Government will continue to be bound by the restrictive marking. This final decision shall be issued within sixty (60) days after receipt of the Contractor's or subcontractor's response to the challenge notice, or within such longer period that the

Contracting Officer has notified the Contractor or subcontractor that the Government will require. The notification of a longer period for issuance of a final decision will be made within sixty (60) days after receipt of the response to the challenge notice.

- (2)(i) If the Contracting Officer determines that the validity of the restrictive marking is not justified, the Contracting Officer shall issue a final decision to the Contractor or subcontractor in accordance with the Disputes clause of this contract. Notwithstanding paragraph (e) of the Disputes clause, the final decision shall be issued within sixty (60) days after receipt of the Contractor's or subcontractor's response to the challenge notice, or within such longer period that the Contracting Officer has notified the Contractor or subcontractor of the longer period that the Government will require. The notification of a longer period for issuance of a final decision will be made within sixty (60) days after receipt of the response to the challenge notice.

- (ii) The Government agrees that it will continue to be bound by the restrictive marking for a period of ninety (90) days from the issuance of the Contracting Officer's final decision under paragraph (g)(2)(i) of this clause. The Contractor or subcontractor agrees that, if it intends to file suit in the United States Claims Court it will provide a notice of intent to file suit to the Contracting Officer within ninety (90) days from the issuance of the Contracting Officer's final decision under paragraph (g)(2)(i) of this clause. If the Contractor or subcontractor fails to appeal, file suit, or provide a notice of intent to file suit to the Contracting Officer within the ninety (90)-day period, the Government may cancel or ignore the restrictive markings, and the failure of the Contractor or subcontractor to take the required action constitutes agreement with such Government action.
- (iii) The Government agrees that it will continue to be bound by the restrictive marking where a notice of intent to file suit in the United States Claims Court is provided to the Contracting Officer within ninety (90) days from the issuance of the final decision under paragraph (g)(2)(i) of this clause. The Government will no longer be bound, and the Contractor or subcontractor agrees that the Government may strike or ignore the restrictive markings, if the Contractor or subcontractor fails to file its suit within one (1) year after issuance of the final decision. Notwithstanding the foregoing, where the head of an agency determines, on a nondelegable basis, that urgent or compelling circumstances will not permit waiting for the filing of a suit in the United States Claims Court, the Contractor or subcontractor agrees that the agency may, following notice to the Contractor or subcontractor, authorize release or disclosure of the technical data. Such agency determination may be made at any time after issuance of the final decision and will not affect the Contractor's or subcontractor's right to damages against the United States where its restrictive markings are ultimately upheld or to pursue other relief, if any, as may be provided by law.
- (iv) The Government agrees that it will be bound by the restrictive marking where an appeal or suit is filed pursuant to the Contract Disputes Act until final disposition by an agency Board of Contract Appeals or the United States Claims Court. Notwithstanding the foregoing, where the head of an agency determines, on a nondelegable basis, following notice to the Contractor that urgent or compelling circumstances will not permit awaiting the decision by such Board of Contract Appeals or the United States Claims Court, the Contractor or subcontractor agrees that the agency may authorize release or disclosure of the technical data. Such agency determination may be made at any time after issuance of the final decision and will not affect the Contractor's or subcontractor's right to damages against the United States where its restrictive markings are ultimately upheld or to pursue other relief, if any, as may be provided by law.
- (h) *Final disposition of appeal or suit.*
- (1) If the Contractor or subcontractor appeals or files suit and if, upon final disposition of the appeal or suit, the Contracting Officer's decision is sustained—
- (i) The restrictive marking on the technical data shall be cancelled, corrected or ignored; and

- (ii) If the restrictive marking is found not to be substantially justified, the Contractor or subcontractor, as appropriate, shall be liable to the Government for payment of the cost to the Government of reviewing the restrictive marking and the fees and other expenses (as defined in 28 U.S.C. 2412(d)(2)(A)) incurred by the Government in challenging the marking, unless special circumstances would make such payment unjust.
- (2) If the Contractor or subcontractor appeals or files suit and if, upon final disposition of the appeal or suit, the Contracting Officer's decision is not sustained—
- (i) The Government shall continue to be bound by the restrictive marking; and
- (ii) The Government shall be liable to the Contractor or subcontractor for payment of fees and other expenses (as defined in 28 U.S.C. 2412(d)(2)(A)) incurred by the Contractor or subcontractor in defending the marking, if the challenge by the Government is found not to have been made in good faith.
- (i) *Duration of right to challenge.*
The Government may review the validity of any restriction on technical data, delivered or to be delivered under a contract, asserted by the Contractor or subcontractor. During the period within three (3) years of final payment on a contract or within three (3) years of delivery of the technical data to the Government, whichever is later, the Contracting Officer may review and make a written determination to challenge the restriction. The Government may, however, challenge a restriction on the release, disclosure or use of technical data at any time if such technical data—
- (1) Is publicly available;
- (2) Has been furnished to the United States without restriction; or
- (3) Has been otherwise made available without restriction. Only the Contracting Officer's final decision resolving a formal challenge by sustaining the validity of a restrictive marking constitutes "validation" as addressed in 10 U.S.C. 2321.
- (j) *Decision not to challenge.*
A decision by the Government, or a determination by the Contracting Officer, to not challenge the restrictive marking or asserted restriction shall not constitute "validation."
- (k) *Privity of contract.*
The Contractor or subcontractor agrees that the Contracting Officer may transact matters under this clause directly with subcontractors at any tier that assert restrictive markings. However, this clause neither creates nor implies privity of contract between the Government and subcontractors.
- (l) *Flowdown.*
The Contractor or subcontractor agrees to insert this clause in contractual instruments with its subcontractors or suppliers at any tier requiring the delivery of technical data.

(End of clause)

CORRESPONDENCE AFTER AWARD (4000)

All correspondence after award of this contract shall be directed to the following address:

Contract Administration Division
Directorate of Contracting
Walter Reed Army Medical Center
Washington, DC 20307-5000

INVOICING AND PAYMENT (400211)

Payment shall be made upon receipt and acceptance by the Government. Invoices shall be submitted in quadruplicate (one copy marked "original"), to the following address:

Contract Administration Division
Directorate of Contracting, Bldg T-20
Walter Reed Army Medical Center
Washington, DC 20307-5000

CONTRACTING OFFICER'S AUTHORITY (4003)

The Contracting Officer is the ONLY person authorized to approve changes to any of the requirements under this contract, and notwithstanding any provision contained elsewhere in this contract the said authority remains solely with the Contracting Officer. In the event the Contractor effects any changes at the direction of any person other than the Contracting Officer, the change will be considered to have been made without authority, and no adjustment will be made in the contract price to cover any increase in charges incurred as a result thereof.

52.217-09 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 1989)
(400911)

(a) The Government may extend the term of this contract by written notice to the Contractor within the last thirty (30) days before the expiration of the contract; provided, that the Government gave the Contractor a preliminary written notice of its intent to extend at least sixty (60) days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option provision.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 5 years.

1st Option Period - 01 Oct 97 thru 30 Sep 98
2nd Option Period - 01 Oct 98 thru 30 Sep 99
3rd Option Period - 01 Oct 99 thru 30 Sep 2000
4th Option Period - 01 Oct 2000 thru 30 Sep 2001

COMMERCIAL WARRANTY (4023)

The Contractor agrees that the supplies furnished under this contract shall be covered by standard commercial warranties the Contractor gives to any customer for such supplies and that the rights and remedies provided herein are in addition to and do not limit any rights afforded to the Government by any other clause of this contract. Offeror shall complete the following:

Warranty Period: 15 Months

Starting Date of Warranty: Date of Shipment

Warranty Coverage: SEE PRICING PROPOSAL SECTION 9

PACKAGING (4024)

The supplies or equipment shall be packaged to afford adequate protection against corrosion, deterioration and damage in transit from the supply source to the receiving activity. Contractor's standard commercial packaging will be considered acceptable, provided it satisfies the above criteria. Each container shall identify the contract number.

REMITTANCE ADDRESS (4033)

In the space provided below, the Contractor is requested to indicate the address to which payment should be mailed, or indicate "same", if it is the same as the address shown on the solicitation form.

Finnigan/Tremetrics

PO Box 277006

Atlanta, GA 30384-7006

252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) Definition. "Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the Contracting Officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the Contracting Officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

252.212-7001 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS (NOV 1995)

(a) The Contractor agrees to comply with the Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.247-7023, Transportation of Supplies by Sea, which is included in this contract by reference to implement 10 U.S.C. 2631.

(b) The Contractor agrees to comply with any clause that is checked on the following list of DFARS clauses which, if checked, is included in this contract by reference to implement provisions of law or Executive Orders applicable to acquisitions of commercial items or components.

- ☒ 252.205-7000 Provision of Information to Cooperative Agreement Holders (10 U.S.C. 2416).
- ☐ 252.206-7000 Domestic Source Restriction (10 U.S.C. 2304).
- ☐ 252.219-7001 Notice of Partial Small Business Set-Aside with Preferential Consideration for Small Disadvantaged Business Concerns (_____ Alternate 1) (Section 9004, Pub. L. 101-165 (10 U.S.C. 2301 (repealed) note)).
- ☐ 252.219-7002 Notice of Small Disadvantaged Business Set-Aside (_____ Alternate 1) (15 U.S.C. 644).
- ☐ 252.219-7003 Small Business and Small Disadvantaged Business Subcontracting Plan (DoD Contracts) (15 U.S.C. 637).
- ☐ 252.219-7005 Incentive for Subcontracting with Small Businesses, Small Disadvantaged Businesses, Historically Black Colleges and Universities and Minority Institutions (_____ Alternate 1) (Section 9004, Pub. L. 101-165 (10 U.S.C. 2301 (repealed) note)).
- ☐ 252.219-7006 Notice of Evaluation Preference for Small Disadvantaged Business Concerns (_____ Alternate 1) (15 U.S.C. 644).
- ☒ 252.225-7001 Buy American Act and Balance of Payment Program (41 U.S.C. 10, E.O. 10582).
- ☒ 252.225-7007 Trade Agreements (10 U.S.C. 2501-2582).
- ☒ 252.225-7012 Preference for Certain Domestic Commodities.
- ☐ 252.225-7014 Preference for Domestic Speciality Metals (10 U.S.C. 2241 note).
- ☐ 252.225-7015 Preference for Domestic Hand or Measuring Tools (10 U.S.C. 2241 note).

- _____ 252.225-7017 Preference for United States and Canadian Valves and Machine Tools (10 U.S.C. 2534(c)(2)).
- _____ 252.225-7027 Limitation on Sales Commissions and Fees (12 U.S.C. 2779).
- _____ 252.225-7028 Exclusionary Policies and Practices of Foreign Governments (22 U.S.C. 2755).
- _____ 252.225-7029 Restriction on Acquisition of Air Circuit Breakers (10 U.S.C. 2534(a)(3)).
- _____ 252.225-7036 North American Free Trade Agreement Implementation Act.
- X 252.227-7015 Technical Data--Commercial Items (10 U.S.C. 2320).
- X 252.227-7037 Validation of Restrictive Markings on Technical Data (10 U.S.C. 2321).
- X 252.233-7000 Certification of Claims and Requests for Adjustment or Relief (10 U.S.C. 2410).
- _____ 252.242-7002 Submission of Commercial Freight Bills for Audit (31 U.S.C. 3726).
- X 252.247-7024 Notification of Transportation of Supplies by Sea (10 U.S.C. 2631).
- _____ 252.249-7001 Notification of Substantial Impact on Employment (10 U.S.C. 2501 note).
(End of clause)

52.215-26 INTEGRITY OF UNIT PRICES (OCT 1995)
(Reference 15.812-2(a))

52.216-18 ORDERING (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule.

Such orders may be issued from date of award through 30 Sep 1997.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized

in the Schedule.

(End of clause)

52.216-19 ORDER LIMITATIONS (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than \$100.00, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor--

(1) Any order for a single item in excess of \$100,000.00.

(2) Any order for a combination of items in excess of \$250,000.00 or;

(3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.

(c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) above.

(d) Notwithstanding paragraphs (b) and (c) above, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

52.216-21 REQUIREMENTS (OCT 1995)

(a) This is a requirements contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies or services specified in the Schedule are estimates only and are not purchased by this contract. Except as this contract may otherwise provide, if the Government's requirements do not result in orders in the quantities described as "estimated" or "maximum" in the Schedule,

that fact shall not constitute the basis for an equitable price adjustment.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. Subject to any limitations in the Order Limitations clause or elsewhere in this contract, the Contractor shall furnish to the Government all supplies or services specified in the Schedule and called for by orders issued in accordance with the Ordering clause. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(c) Except as this contract otherwise provides, the Government shall order from the Contractor all the supplies or services specified in the Schedule that are required to be purchased by the Government activity or activities specified in the Schedule.

(d) The Government is not required to purchase from the Contractor requirements in excess of any limit on total orders under this contract.

(e) If the Government urgently requires delivery of any quantity of an item before the earliest date that delivery may be specified under this contract, and if the Contractor will not accept an order providing for the accelerated delivery, the Government may acquire the urgently required goods or services from another source.

(f) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after 30 Sep 2001.

(End of clause)

52.232-18 AVAILABILITY OF FUNDS (APR 1984)

Funds are not presently available for this contract. The Government's obligation under this contract is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Contracting Officer for this contract and until the Contractor receives notice of such availability, to be confirmed in writing by the Contracting Officer.

(End of clause)

(SS 7-104.91(a) 1962 SEP)

52.232-28 ELECTRONIC FUNDS TRANSFER PAYMENT METHODS (APR 1989)
(Reference 32.908(d))

252.242-7000 POSTAWARD CONFERENCE (DEC 1991)

The Contractor agrees to attend any postaward conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation Subpart 42.5.

(End of clause)

52.244-1 SUBCONTRACTS (FIXED-PRICE CONTRACTS) (FEB 1995)

(a) This clause does not apply to firm-fixed-price contracts and fixed-

price contracts with economic price adjustment. However, it does apply to subcontracts resulting from unpriced modifications to such contracts.

(b) "Subcontract," as used in this clause, includes but is not limited to purchase orders, and changes and modifications to purchase orders. The Contractor shall notify the Contracting Officer reasonably in advance of entering into any subcontract if the Contractor does not have an approved purchasing system and if the subcontract--

(1) Is proposed to exceed \$100,000; or

(2) Is one of a number of subcontracts with a single subcontractor, under this contract, for the same or related supplies or services, that in the aggregate are expected to exceed \$100,000.

(c) The advance notification required by paragraph (b) above shall include--

(1) A description of the supplies or services to be subcontracted;

(2) Identification of the type of subcontract to be used;

(3) Identification of the proposed subcontractor and an explanation of why and how the proposed subcontractor was selected, including the competition obtained;

(4) The proposed subcontract price and the Contractor's cost or price analysis;

(5) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions;

(6) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract; and

(7) A negotiation memorandum reflecting--

(i) The principal elements of the subcontract price negotiations;

(ii) The most significant considerations controlling establishment of initial or revised prices;

(iii) The reason cost or pricing data were or were not required;

(iv) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(v) The extent, if any, to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and subcontractor; and the effect of any such defective data on the total price negotiated;

(vi) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(vii) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(d) The Contractor shall obtain the Contracting Officer's written consent before placing any subcontract for which advance notification is required under paragraph (b) above. However, the Contracting Officer may ratify in writing any such subcontract. Ratification shall constitute the consent of the Contracting Officer.

(e) Even if the Contractor's purchasing system has been approved, the Contractor shall obtain the Contracting Officer's written consent before placing subcontracts identified below: _____

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination (1) of the acceptability of any subcontract terms or conditions, (2) of the acceptability of any subcontract price or of any amount paid under any subcontract, or (3) to relieve the Contractor of any responsibility for performing this contract.

(g) No subcontract placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement subcontracts shall not exceed the fee limitations in subsection 15.903(d) of the Federal Acquisition Regulation (FAR).

(h) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(End of clause)

52.247-34 F.O.B. DESTINATION (NOV 1991)
(Reference 47.303-6(c))

SPECIAL CONTRACT REQUIREMENTS.

1. **Term of Contract.** The term of this contract shall be from date of award and extend through 30 September 1997. The contract may be renewed on a fiscal year basis. The total duration shall not exceed 60 months from date of award. However, the contract shall also cover the warranty period for any items ordered throughout the 60 month period.
2. **Contractor Commitments, Warranties and Representations.** Any written commitment by the Contractor within the scope of this contract shall be binding upon the Contractor. Failure of the Contractor to fulfill any such commitment shall render the Contractor liable for liquidated or other damages due to the Government under the terms of this contract. For the purpose of this contract, a written commitment by the Contractor is limited to the proposal submitted by the Contractor, and to specific written modifications to the proposal. Written commitments by the Contractor are further defined as including (1) any warranty or representation made by the Contractor in a proposal as to hardware, firmware or software performance, and other physical, design or functioning characteristics of the MA, the software interface or installation date, (2) any warranty or representation made by the Contractor concerning the characteristics or items described in (1) above, made in any publications, drawings or specifications accompanying or referred to in a proposal, and (3) any modification of, or affirmation or representation as to, the above which is made by the Contractor in, or during, the course of negotiations, whether or not incorporated into a formal amendment to the proposal in question.
3. **Contractor Representation.** Unless the Contractor expressly states otherwise in the Contractor's proposal, where functional requirements are expressly stated as part of the requirements of this solicitation, the Contractor, by responding, represents that in its opinion the item(s) proposed are capable of meeting those requirements.
4. **Engineering Changes.**
 - 4.1. After contract award, the Government may solicit, and the Contractor is encouraged to propose independently, engineering changes proposals to the local area network (LAN) components or other requirements of this contract. These changes may be proposed for reasons of economy, improved performance, or to resolve increased data processing requirements. Proposed changes relating to improved performance necessary to meet increased data processing requirements shall not exceed the contract cost, which has been adjusted by 25 percent for both the changes under this provision and any additional items which may be acquired. Those proposed engineering changes that are acceptable to the Government will be processed as modifications to the contract.
 - 4.2. This subparagraph applies only to those proposed changes initiated by the Contractor as a proposal submitted pursuant to the provisions of this clause. As a minimum, the following information shall be submitted by the Contractor with each proposal:
 - a. A description of the difference between the existing contract requirement and the proposed change, and the comparative advantages and disadvantages of each.

- b. Itemized requirements of the contract which shall be changed if the proposal is adapted, and the proposed revision to the contract for each such change.
- c. An estimate of the changes in performance, if any, that will result from adoption of the proposal.
- d. A complete item by item cost of the proposed change.
- e. An evaluation of the effects the proposed change would have on collateral costs to the Government such as Government furnished property costs, costs of related items, costs of maintenance and operations, and costs of software maintenance, if applicable.
- f. A statement of the time by which the change order adopting the proposal must be issued so as to obtain the maximum benefits of the changes during the remainder of this contract. Any effect on the contract completion time or delivery schedule shall be identified.

4.3. Engineering change proposals submitted to the Contracting Officer will be processed expeditiously. The Government shall not be liable for proposal preparation costs or any delay in acting upon any proposal submitted pursuant to this clause. The Contractor has the right to withdraw, in whole or in part, any engineering change proposal not accepted by the Government within the period specified in the engineering change proposal. The decision of the Contracting Officer as to the acceptance of any such proposal under this contract shall be final and shall not be subject to the "Disputes" clause of this contract.

4.4. The Contracting Officer may accept any engineering change proposal submitted pursuant to this clause by giving the Contractor written notice thereof. This written notice may be given by issuance of a modification to this contract. Unless and until a modification is executed to incorporate an engineering change proposal under this contract, the Contractor shall remain obligated to perform in accordance with the terms of the existing contract.

4.5. If an engineering change proposal submitted pursuant to this contract is accepted and applied to this contract, an equitable adjustment in the contract price and in any other affected provisions of the contract shall be made in accordance with this clause and other applicable clauses of the contract. When the cost of performance is increased or decreased as a result of the change, the equitable adjustment increasing or decreasing the contract price shall be in accordance with the "Changes" clause rather than under this clause, but the resulting contract modification shall state that it is made pursuant to this clause.

4.6. The Contractor is required to identify specifically any information contained in its engineering change proposal which it considers proprietary or confidential and which it prefers not to be disclosed to the public. The identification of information as proprietary or confidential is for information purposes only, and shall not be binding on the Government to prevent disclosure of such information. Offerors are advised that such information may be subject to release upon request pursuant to the Freedom of Information Act (15 USC 552).

5. Written Delivery Orders. Written delivery orders will contain the following information, as a minimum, consistent with the terms of the contract:

- a. Date of the Order
- b. Contract Number and Delivery Order Number
- c. Specific quantity of equipment or services to be ordered
- d. Delivery or Performance Date
- e. Place of Performance or Delivery
- f. Total Order Price
- g. Accounting and Appropriation Data
- h. Inspection, Acceptance, Invoicing and Payment Provisions to the extent not covered in the contract
- I. Signature of the Contracting Officer

6. Constraints (CLINS 0005 and 0007). The estimated quantities represented by CLINS 0005 and 0007 include requirements which because of possible budgetary constraints, may be performed by Government personnel.

CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE
ORDERS--COMMERCIAL ITEMS (JAN 1996)

(a) The Contractor agrees to comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

- (1) 52.222-3, Convict Labor (E.O. 11755); and
- (2) 52.233-3, Protest After Award (31 U.S.C. 3553 and 40 U.S.C. 759).

(b) The Contractor agrees to comply with the FAR and FIRMR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

- ☒ (1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate 1 (41 U.S.C. 253g and 10 U.S.C. 2402).
- ☒ (2) 52.203-10, Price or Fee Adjustment for Illegal or Improper Activity (41 U.S.C. 423).
- ☒ (3) 52.219-8, Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (15 U.S.C. 637 (d) (2) and (3));
- ☒ (4) 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4));
- ☒ (5) 52.219-14, Limitation on Subcontracting (15 U.S.C. 637(a)(14)).
- ☒ (6) 52.222-26, Equal Opportunity (E.O. 11246).
- ☒ (7) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C. 4212).
- ☒ (8) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793).
- ☒ (9) 52.222-37, Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).
- ☒ (10) 52.225-3, Buy American Act--Supplies (41 U.S.C. 10).
- ☒ (11) 52.225-9, Buy American Act--Trade Agreements Act--Balance of Payments Program (41 U.S.C. 10, 19 U.S.C. 2501-2582).
- ☒ (12) Reserved.
- ☒ (13) 52.225-18, European Union Sanction for End Products (E.O. 12849).
- ☒ (14) 52.225-19, European Union Sanction for Services (E.O. 12849).
- ☒ (15) 52.225-21, Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program (41 U.S.C. 10,

Pub. L. 103-187).

_____ (16) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. 1241).

_____ (17) 201-39.5202-3, Procurement Authority (FIRMR).

(This acquisition is being conducted under _____ delegation of GSA's exclusive procurement authority for FIP resources. The specific GSA DPA case number is _____).

(c) The Contractor agrees to comply with the FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

 X (1) 52.222-41, Service Contract Act of 1965, As amended (41 U.S.C. 351, et seq.).

 X (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

 X (3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

_____ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

_____ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits
Applicable

to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351, et seq.).

(d) Comptroller General Examination of Record. The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records

relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--

(1) 52.222-26, Equal Opportunity (E.O. 11246);

(2) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C. 2012(a)); and

(3) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793).

(4) 52.247-64, Preference for Privately Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

(End of clause)

(a) Standard industrial classification (SIC) code and small business size standard. The SIC code and small business size standard for this acquisition appear in Block 10 of the solicitation cover sheet (SF 1449). However, the small business size standard for a concern which submits an offer in its own name, but which proposes to furnish an item which it did not itself manufacture, is 500 employees.

(b) Submission of offers. Submit signed and dated offers to the office specified in this solicitation at or before the exact time specified in this solicitation. Offers may be submitted on the SF 1449, letterhead stationery, or as otherwise specified in the solicitation. As a minimum, offers must show----

- (1) The solicitation number;
- (2) The time specified in the solicitation for receipt of offers;
- (3) The name, address, and telephone number of the offeror;
- (4) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary;
- (5) Terms of any express warranty;
- (6) Price and any discount terms;
- (7) "Remit to" address, if different than mailing address;
- (8) A completed copy of the representations and certifications at FAR 52.212-3;

(9) Acknowledgment of Solicitation Amendments;

(10) Past performance information, when included as an evaluation factor, to include recent and relevant contracts for the same or similar items and other references (including contract numbers, points of contact with telephone numbers and other relevant information); and

(11) If the offer is not submitted on the SF 1449, include a statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation. Offers that fail to furnish required representations or information, or reject the terms and conditions of the solicitation may be excluded from consideration.

(c) Period for acceptance of offers. The offeror agrees to hold the prices in its offer firm for 30 calendar days from the date specified for receipt of offers, unless another time period is specified in an addendum to the solicitation.

(d) Product samples. When required by the solicitation, product samples shall be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in this solicitation, these samples shall be

submitted at no expense to the Government, and returned at the sender's request and expense, unless they are destroyed during preaward testing.

(e) Multiple offers. Offerors are encouraged to submit multiple offers presenting alternative terms and conditions or commercial items for satisfying the requirements of this solicitation. Each offer submitted will be evaluated separately.

(f) Late offers. Offers or modifications of offers received at the address specified for the receipt of offers after the exact time specified for receipt of offers will not be considered.

(g) Contract award (not applicable to Invitation for Bids). The Government intends to evaluate offers and award a contract without discussions with offerors. Therefore, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. The Government may reject any or all offers if such action is in the public interest; accept other than the lowest offer; and waive informalities and minor irregularities in offers received.

(h) Multiple awards. The Government may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may not be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.

(i) Availability of requirements documents cited in the solicitation.

(1) The Index of Federal Specifications, Standards and Commercial Item Descriptions and the documents listed in it may be obtained from the General Services Administration, Federal Supply Service Bureau, Specifications Section, Suite 8100, 470 L'Enfant Plaza, SW., Washington, DC 20407 ((202) 755-0325/0326).

(2) The DOD Index of Specifications and Standards (DODISS) and documents listed in it may be obtained from the Standardization Documents Desk, Building 40, 700 Robbins Avenue, Philadelphia, PA 19111-5094 (telephone (215) 697-2569).

(i) Automatic distribution may be obtained on a subscription basis.

(ii) Individual documents may be ordered from the Telespecs ordering system by touch-tone telephone. A customer number is required to use this service and can be obtained from the Standardization Documents Order Desk or the Special Assistance Desk (telephone (610) 607-2667/2179).

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(3) Nongovernment (voluntary) standards must be obtained from the organization responsible for their preparation, publication or maintenance.

(End of provision)

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DADA15-96-R-0031

1. General Information.

1.1. Proposals will be evaluated for technical quality, performance risk to the Government, and price reasonableness following the evaluation procedures of this solicitation.

1.2. The Department of Defense (DOD) is committed to applying "Best Value" contracting as a means to rely on industry for timely delivery of quality products and services, while reducing the Government's administrative costs associated with Contractor oversight. To this end, we are evaluating factors in addition to price under this solicitation. Since an offeror's past performance can be used as a predictor of the probability of satisfactory performance on the proposed program being evaluated, we will be using past performance information as an element of risk analysis. Moreover, those offerors who have consistently demonstrated a record of conforming to specifications and to standards of good workmanship; adherence to contract schedules, including the administrative aspects of performance; reasonable and cooperative behavior and commitment to customer satisfaction; and generally, business-like concern for the interests of the customer, will receive more favorable consideration than those who do not.

1.3. Technical/Performance Demonstration. The performance of the MAs will be evaluated directly by the end users. This will be accomplished by requiring the prospective contractors to complete a Live Test Demonstration (LTD) with Government representatives in attendance. Testing with the MA will be required using one, two, four, six and eight subjects. The prospective Contractors will be supplied with eight subjects and will demonstrate testing in the various test modes (automatic and manual), various types of tests and show the use of the various function keys. All competing prospective Contractors will be given identical time to demonstrate their product.

1.3.1. Live Test Demonstration (LTD). After receipt and preliminary technical evaluation of proposals, and prior to final determination of technical responsiveness, offerors may be required to successfully perform a LTD in the presence of Government representatives. Each offeror shall be required to provide a complete system to include the ADPE which must be identical to that provided by the Government (Appendix II).

1.3.1.1. Purpose. The purpose of the LTD is to demonstrate to the Government that the proposed integrated systems (hardware and software) can perform all requirements of the specification and comply with all representations made on the proposal.

1.3.1.2. Location. The LTD will take place at Aberdeen Proving Ground, Maryland and will be conducted by representatives of the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), the U.S. Air Force Armstrong Laboratory Hearing Conservation Data Registry (HCDR), and the Navy Environmental Health Center (NEHC).

1.3.1.3. Requirements of the Live Test Demonstration (LTD).

1.3.1.3.1. Offerors must be prepared to successfully demonstrate any or all of the specified MA capabilities.

1.3.1.3.2. A one-, two-, four-, six- and eight-person MA must be demonstrated.

1.3.1.3.3. Manuals required by this specification shall be provided with the MAs for examination by the Government evaluation team.

1.3.1.3.4. For purposes of the LTD, the contractor will be expected to have developed his own test base and be capable of generating his own "baseline" audiogram. Accordingly, complete DD Forms 2215 and 2216 must be created as part of the demonstration.

1.3.1.4. The Government anticipates that the LTD will take approximately two working days, as a minimum, to complete, but in no case exceed five working days.

1.3.1.5. Exact dates and terms for the initial test and any necessary retests will be scheduled by mutual agreement between the Government and the Contractor; however, offerors are expected to participate in the initial LTD within 15 days of notification by the Contracting Officer.

1.3.2. Training Plan. The Contractor shall provide, as part of his technical proposal, a training plan which as a minimum shall include:

- (1) A description of the course, i.e., calibration, MA user training.**
- (2) Course objectives.**
- (3) The expected duration of the course in days and/or hours.**
- (4) Manuals and any other documentation to be provided.**
- (5) The facilities and equipment which are required for the course.**

1.3.3. The Contractor shall describe the technical expertise and experience of individuals who will be performing services (training, installation, or maintenance) under this contract. All support personnel shall have at least one year of experience in the same or similar services as required by this solicitation. Those offerors who propose personnel with two or more years of directly related experience will be rated higher than those who do not.

1.4. Past Performance Information. The offeror shall submit a description of its contracts (all prime and major subcontracts received during the past three years) for the same, or similar equipment, as required by this solicitation. The description shall include the following information:

- a. Contract Number, Date of Award and Type of Contract**
- b. Initial Award Amount**
- c. Current Amount and Projected Final Amount**
- d. Initial Delivery Schedule**
- e. Current Delivery Schedule and Projected Schedule**
- f. Contracting Activity, Address and Phone Number**
- g. Procuring Contracting Officer's Name, Address and Phone Number**
- h. Administrative Contracting Officer's Name, Organization, Address and Phone Number**
- i. Technical Representative's Name, Address and Phone Number**

j. For each instance of past performance, the offeror shall provide a description of the effort required, highlighting the similarities and differences between that previous experience and the effort required under this solicitation. As a minimum, the offeror must explain the cause for any significant performance problems encountered, and the actions performed to mitigate and resolve the problems. The offeror should explain corrective actions implemented.

1.4.1. The information required above must be provided for any and all contracts terminated for default during the past three years (including those currently in process of being terminated for default and/or under litigation).

1.4.2. The Government reserves the right to verify the information provided for evaluation purposes.

1.4.3. The Government may use independent data in addition to the data provided by the offeror to evaluate past performance.

1.4.4. Caution. Proposals which do not contain this information in sufficient detail for evaluation purposes may be considered unacceptable. If the offeror is unable to complete or respond to a particular element, a complete explanation should be provided as to why the information is not available (since a lack of such knowledge may in itself be construed as inadequate past administrative management control on the part of the offeror).

1.5. Cost/Price Information. Standard Form 1449, Solicitation/Contract/Order for Commercial Items, shall be signed and applicable information provided. Pricing data shall be submitted in accordance with the instructions provided on page 2 of this solicitation.

1.6. Subcontracting Plans (Reference Clause 52.219-9).

1.6.1. In the event that an annual company or division wide subcontracting plan is submitted in response to this solicitation, offerors are reminded that the plan should be current, approved and cover the company's current fiscal year, which must be identified. In an offeror has a previously approved plan, a new plan should be submitted at least sixty days before the existing plan expires. A Small Business and Small Disadvantaged Business Plan Subcontracting Guide is provided in this solicitation and is marked "Attachment 4".

1.6.2. Subcontracting plans approved by other government agencies should be company or division wide in order to be applicable. All plans approved by another government agency must be accompanied by the letter of approval issued by the agency. Plans must be submitted with the initial proposal.

FACSIMILE OFFERS (40141)

Facsimile offers are NOT authorized.

TELEGRAPHIC OFFERS (4016)

Telegraphic offers will not be permitted.

HAND CARRIED OFFERS (4018)

Hand carried offers must be deposited with the Receptionist at the Directorate of Contracting, Building T-20, First Floor, Walter Reed Army Medical Center, Washington, DC 20307-5000, to be time stamped prior to the time specified for receipt.

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that--

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory--

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above

R.W. Chapman, CEO/President ThermoQuest *[Signature]*

(Insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

() (i) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(ii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above.

(c) If the offeror deletes or modifies subparagraph (a)(2) above, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of provision)

(a) The Government will award a contract resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered.

The following factors shall be used to evaluate offers: technical quality, past performance and cost/price.

Technical and past performance, when combined, are more important than price.

(b) Options. The Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Government may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options shall not obligate the Government to exercise the option(s).

(c) A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

(End of Provision)

1. BASIS FOR AWARD.

1.1. Award will be made, subject to available funding and offeror responsibility, to a technically acceptable offeror, the price or cost of which is not necessarily the lowest, but which is sufficiently more advantageous than the lowest offer so as to justify payment of additional amounts, based on all evaluation criteria described in this section. For this solicitation, technical quality is more important than past performance, and past performance is more important than cost. The degree of importance of cost as a factor could become greater depending upon the equality of the proposals for other factors evaluated; where competing proposals are determined to be substantially equal, total cost and other cost factors would become the controlling factor.

1.2. Responsibility. An offeror must be determined responsible according to the standards in FAR Subpart 9.1 to be eligible for award.

1.3. Weighing the Evaluation Factors. In order to provide the offeror with an insight to the Government's weighing of factors, the following terminology is used:

a. Significantly More Important. This factor/subfactor is two times or greater in value than another factor/subfactor.

b. More Important. This factor/subfactor is greater in value than another factor/subfactor, but less than two times greater.

c. Important. This factor/subfactor is less in value than the second factor/subfactor.

1.3.1. The Technical Factor, Past Performance Factor, and Cost Factor will each be evaluated separately. The Technical Factor is more important than both Cost and Past Performance. The Past Performance Factor is more important than Cost.

1.4. Evaluation Process.

1.4.1. Each proposal will be evaluated for compliance in addressing all requirements of the solicitation. Specific attention will be paid to the following:

- a. That all required information has been provided;**
- b. That all contractual terms and conditions have been met;**
- c. That the minimum requirements of the Statement of Work have been met.**

1.4.2. "Technical Acceptability" is defined for purposes of this solicitation as the ability of the offeror to meet all the requirements listed in the specifications.

1.5. Evaluation Factors.

- a. Technical Quality**
- b. Past Performance**

c. Cost/Price

1.5.1. Technical Factors/Subfactors.

1.5.1.1. Live Test Demonstration. This subfactor is significantly more important than any other subfactor. The demonstration is of such critical importance that an "Unacceptable" rating in this subfactor will render the entire proposal "Unacceptable".

a. Major Areas of Importance. The following specification paragraphs and sub-paragraphs are considered of major importance to the Government and serious discrepancies in these areas will be grounds for determining the offered system as technically unacceptable. Failure to successfully demonstrate any of the following major items may cause an offeror's proposal to be considered unacceptable and determined outside the competitive range.

4.2.1.1.	4.2.1.2.
4.2.1.3.	4.2.1.9.
4.2.1.10.	4.2.2.1.
4.2.2.2.	4.2.2.3.
4.2.2.6.	4.3.1.
5.1.	

b. Minor Features. All other specification paragraphs and sub-paragraphs not specified above are considered minor features of the system. Discrepancies in these areas may be corrected by the offeror within 30 days of the noted failure(s). However, all noted minor discrepancies must be corrected and conform to specification before the offered system can be declared technically acceptable. The retest period will not exceed two working days. Failure to correct any minor discrepancy may result in a finding that the proposal is outside the competitive range.

1.5.1.2. Speed, Weight and Size of the MA. These three subfactors are of equal importance to each other, but are more important than the Personnel Experience and Training Plan subfactors.

1.5.1.3. Personnel Experience. This subfactor is important.

1.5.1.4. Training Plan. This subfactor is important.

1.5.2. Technical Evaluation. The rating methodology for evaluating technical information to be used by the Government will be adjectival, as follows:

a. Exceptional. Proposed system significantly exceeds stated criteria/requirements. Proposal offers an approach which satisfies all of the Government's requirements, with extensive detail to indicate how the approach is not only feasible but desirable and which shows a thorough understanding of the requirement.

b. Acceptable. Proposed system meets stated criteria/requirements. Proposal satisfies all of the Government's requirements, with adequate detail to indicate the feasibility of the approach

and an understanding of the requirement.

c. **Marginal.** Proposed system contains no more than minor deficiencies relative to stated criteria/specifications. Proposal barely satisfies all of the Government's requirements, with minimum detail to indicate the feasibility of the approach and an understanding of the requirement.

d. **Unacceptable.** Proposed system contains deficiencies to the extent that criteria/requirements can only be met with major changes to the proposal. Proposal indicates a lack of understanding of the requirement; an approach based on untried and unproven devices or techniques; or an approach which cannot be expected to meet requirements or involves a very high risk and these conditions cannot be corrected without a major rewrite or revision of the proposal. (Proposals which are so technically deficient as to make them technically unacceptable will be rejected as unacceptable, regardless of the cost or price offered. No discussions will be held with "technically unacceptable" offerors, nor will any "technically unacceptable" offeror be given an opportunity to revise his offer to correct those deficiencies in order to become acceptable after the date and time set for receipt of initial offers.)

1.5.3. Past Performance Evaluation. The rating methodology for evaluating past performance to be used by the Government, will be as follows:

a. **High Risk.** Equates to a minimal expectation of success. Verification of Past Performance shows that offeror has consistently not met delivery schedules, cannot provide specified products, has been defaulted on at least one contract within the past three years, or chronically fails to meet contract terms.

b. **Medium Risk.** Equates to a reasonable expectation of success. Verification of Past Performance shows that offeror occasionally has not met delivery schedules, on occasion has been unable to provide requested products, or meets contract terms with only a few reported failures. This offeror has not been defaulted in the past three years.

c. **Low Risk.** Equates to a substantial probability of success. Verification of Past Performance shows that offeror consistently meets delivery schedules, provides specified products, meets contract terms without failure, and has not been defaulted on a contract within the past three years.

1.5.4. Cost/Price Evaluation. Each proposal will be evaluated against the requirements of the solicitation to determine price reasonableness.

52.212-3

OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (MAR 1996)

(a) Definitions. As used in this provision:

"Emerging small business" means a small business concern whose size is no greater than 50 percent of the numerical size standard for the standard industrial classification code designated.

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

"Small disadvantaged business concern" means a small business concern that--

(1) Is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business, having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and

(2) Has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian organization and which meets the requirements of 13 CFR Part 124.

"Women-owned small business concern" means a small business concern--

(1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Taxpayer identification number (TIN) (26 U.S.C. 6050M).

(1) Taxpayer Identification Number (TIN).

☒ TIN: 77-0417953.

☐ TIN has been applied for.

☐ TIN is not required because:

☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;

☐ Offeror is an agency or instrumentality of a foreign government;

☐ Offeror is an agency or instrumentality of a Federal, state, or local government;

☐ Other. State basis. _____

(2) Corporate Status.

☐ Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;

☒ Other corporate entity;

☐ Not a corporate entity;

☐ Sole proprietorship

☐ Partnership

☐ Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(3) Common Parent.

☐ Offeror is not owned or controlled by a common parent.

Name and TIN of common parent:

Name ThermoQuest

TIN 77-0417953

(c) Offerors must complete the following representations when the resulting contract is to be performed inside the United States, its territories or possessions, Puerto Rico, the Trust Territory of the Pacific

Islands, or the District of Columbia. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it ☐ is, ☒ is not a small business concern.

(2) Small disadvantaged business concern. The offeror represents and certifies that it ☐ is, ☒ is not a small disadvantaged business concern.

(3) Women-owned small business concern. The offeror represents that it ☐ is, ☒ is not a women-owned small business concern.

Note: Complete paragraphs (c)(4) and (c)(5) only if this solicitation is expected to exceed the simplified acquisition threshold:

(4) Women-owned business concern. The offeror represents that it ☐ is, ☒ is not, a women-owned business concern.

(5) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

N/A

(6) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. (Complete only if the offeror has certified itself to be a small business concern under the size standards for this solicitation.)

(i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).) The offeror represents as part of its offer that it ☐ is, ☐ is not an emerging small business.

(ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs).) Offeror represents and certifies as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of

annual receipts)

(Check one of the following):

Number of Employees	Average Annual Gross Revenues
<input type="checkbox"/> 50 or fewer	<input type="checkbox"/> \$1 million or less
<input type="checkbox"/> 51-100	<input type="checkbox"/> \$1,000,001-\$2 million
<input type="checkbox"/> 101-250	<input type="checkbox"/> \$2,000,001-\$3.5 million
<input type="checkbox"/> 251-500	<input type="checkbox"/> \$3,500,001-\$5 million
<input type="checkbox"/> 501-750	<input type="checkbox"/> \$5,000,001-\$10 million
<input type="checkbox"/> 751-1,000	<input type="checkbox"/> \$10,000,001-\$17 million
<input checked="" type="checkbox"/> Over 1,000	<input checked="" type="checkbox"/> Over \$17 million

(d) Certifications and representations required to implement provisions of Executive Order 11246--

(1) Certification of non-segregated facilities. (Applies only if the contract amount is expected to exceed \$10,000)--

By submission of this offer, the offeror certifies that it does not and will not maintain or provide for its employees, any facilities that are segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise and that it does not and will not permit its employees to perform their services at any location where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.

(2) Previous Contracts and Compliance. The offeror represents that--

(i) If ☒ has, ☐ has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order 10925, or the clause contained in Section 201 of Executive Order 11114; and

(ii) It ☒ has, ☐ has not, filed all required compliance reports.

(3) Affirmative Action Compliance. The offeror represents that--

(i) It ☒ has developed and has on file, ☐ has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It ☐ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed \$100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

(f) Buy American Act--Trade Agreements--Balance of Payments Program Certificate. (Applies only if FAR clause 52.225-9, Buy American Act--Trade Agreement--Balance of Payments Program, is included in this solicitation.)

(1) The offeror hereby certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product (as defined in the clause entitled "Buy American Act--Trade Agreements Balance of Payments Program") and that components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States, a designated country, a North American Free Trade Agreement (NAFTA) country, or a Caribbean Basin country, as defined in section 25.401 of the Federal Acquisition Regulation.

(2) Excluded End Products:

Line item No.	Country of origin
NONE	
_____	_____
_____	_____
_____	_____

(List as necessary)

(3) Offers will be evaluated by giving certain preferences to domestic end products, designated country end products, NAFTA country end products, and Caribbean Basin country end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (f)(2) of this provision, offerors must identify and certify below those excluded end products that are designated or NAFTA country end products, or Caribbean Basin country end products. Products that are not identified and certified below will not be deemed designated country end products, NAFTA country end products, or Caribbean Basin country end products. Offerors must certify by inserting the applicable line item numbers in the following:

(i) The offeror certifies that the following supplies qualify as "designated or NAFTA country end products" as those terms are defined in the clause entitled "Buy American Act--Trade Agreements--Balance of Payments Program":

NONE

(Insert line item numbers)

(ii) The offeror certifies that the following supplies qualify as "Caribbean Basin country end products" as that term is defined in the clause entitled "Buy American Act--Trade Agreements--Balance of Payments Program":

NONE

(Insert line item numbers)

(4) Offers will be evaluated in accordance with FAR Part 25.
(g) Buy American Act--North American Free Trade Agreement (NAFTA) Implementation Act--Balance of Payments Program Certificate. (Applies only if FAR clause 52.22521, Buy American Act--North American Free Trade

Agreement (NAFTA) Implementation Act--Balance of Payments Program, is included in this solicitation.)

(1) The offeror hereby certifies that each end product, except those listed in paragraph (g)(2) of this provision, is a domestic end product (as defined in the clause entitled "Buy American Act--North American Free Trade Agreement (NAFTA) Implementation Act-Balance of Payments Program" and that components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States.

(2) Excluded End Products:

Line item No.	Country of origin
<u>NONE</u>	<u> </u>
<u> </u>	<u> </u>

(List as necessary)

(3) Offers will be evaluated by giving certain preferences to domestic end products or NAFTA country end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (g)(2) of this provision, offerors must identify and certify below those excluded end products that are NAFTA country end products. Products that are not identified and certified below will not be deemed NAFTA country end products. Offerors must certify by inserting the applicable line item numbers in the following:

The offeror certifies that the following supplies qualify as "NAFTA country end products" as that term is defined in the clause entitled "Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program:"

NONE

(Insert line item numbers)

(4) Offers will be evaluated in accordance with FAR Part 25.

(h) Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549). The offeror certifies, to the best of its knowledge and belief, that--

(1) The offeror and/or any of its principals ☐ are, ☒ are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency, and

(2) ☐ Have, ☒ have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and ☐ are, ☒ are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses.

(i) Procurement Integrity Certification (41 U.S.C. 423).

(Applies only if the contract is expected to exceed \$100,000.)

I, the undersigned, am the officer or employee responsible for the preparation of this offer. I certify, to the best of my knowledge and belief, that either--

☒ I have no information, or

☐ I have disclosed information to the Contracting Officer concerning a violation or possible violation of subsection (a), (b), (d) or (f) of 41 U.S.C. 423, Procurement Integrity, or its implementing regulations that may have occurred during the conduct of this procurement.

R.W. Chapman

1/10/97

Signature of the officer or employee responsible for the offer and date.

R.W. Chapman, CEO/President ThermoQuest
(End of Provision)

252.212-7000 OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (NOV 1995)
(Reference 12.301(f)(1))

(a) Definitions.

As used in this clause--

(1) Foreign person means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec. 2415).

(2) United States person is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concern, as determined under regulations of the President.

(b) Certification.

By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec. 2407(a) prohibits a United States person from taking.

(c) Representation of Extent of Transportation by Sea. (This representation does not apply to solicitations for the direct purchase of ocean transportation services).

(1) The Offeror shall indicate by checking the appropriate blank in paragraph (c)(2) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term "supplies" is defined in the Transportation of Supplies by Sea clause of this solicitation.

(2) Representation.

The Offeror represents that it--

____ Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

 X Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(3) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense Federal Acquisition Regulation Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

252.225-7000 BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM CERTIFICATE (DEC 1991)

(a) Definitions. "Domestic end product," "qualifying country," "qualifying country end product," and "nonqualifying country end product" have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.

(b) Evaluation. Offers will be evaluated by giving preference to domestic end products and qualifying country end products over nonqualifying country end products.

(c) Certifications. (1) The Offeror certifies that--

(i) Each end product, except those listed in paragraphs (c)(2) or (3) of this clause, is a domestic end product; and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The Offeror certifies that the following end products are qualifying country end products:

QUALIFYING COUNTRY END PRODUCTS

Line item No.	Country of origin
NONE	

(List only qualifying country end products.)

(3) The Offeror certifies that the following end products are nonqualifying country end products:

NONQUALIFYING COUNTRY END PRODUCTS

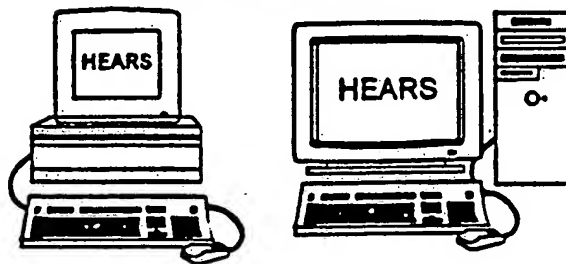
Line item No.	Country of origin (if known)
NONE	

EXHIBITS AND ATTACHMENTS

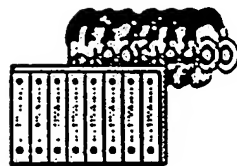
1. Appendix I, DOD HEARS Microprocessor Configuration, 1 page.
2. Appendix II, Government Furnished ADPE, 2 pages.
3. Appendix III, Microprocessor Audiometer Sites (CONUS and OCONUS - by Service), 34 pages.
4. Appendix IV, Fault Codes and Instructions for Microprocessor Audiometry, 2 pages.
5. Appendix V, Microprocessor Audiometer Delivery Addresses (CONUS and OCONUS), 1 page.
6. Attachment 1, DD Form 2215, Reference Audiogram, 1 page.
7. Attachment 2, DD Form 2216, Hearing Conservation Data, 1 page.
8. Attachment 3, DD Form 2217, Biological Audiometer Calibration Check, 1 page.
9. Attachment 4, Small Business and Small Disadvantaged Business Subcontracting Guide, 6 pages.

Appendix I DoD HEARS Microprocessor Audiometer Configuration

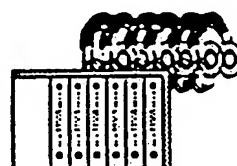
HEARS Computers for Use with an External Microprocessor Audiometer



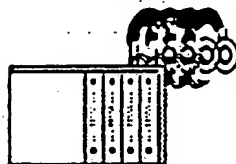
External Multi-Station Compatible Microprocessor Audiometers



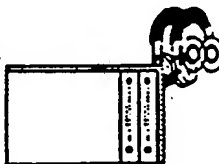
8 Test Stations



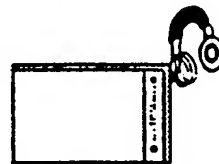
6 Test Stations



4 Test Stations



2 Test Stations



1 Test Station

Appendix II
Government Furnished ADPE

Configuration 1

Microcomputer, Consisting of:
Pentium Processor
16 MB RAM
1278 MB Hard Drive
3.5" Floppy Drive
CD-ROM
Soundblaster with Speakers
17" Monitor
101 Keyboard
Mouse
Windows 95
Windows Office Professional
DOD HEARS Software
Documentation and User Manuals

Configuration 2

Microcomputer, Consisting of:
80486 Processor
8 MB RAM
340 MB Hard Drive
3.5" Floppy Drive
5.25" Floppy Drive
EGA/VGA Monitor
Keyboard
Mouse
Windows 95
Windows Office Professional
DOD HEARS Software
Documentation and User Manuals

Spike and Noise Suppressor (wall plug-in)

Multiple (6) outlet power strip with on/off light and 25-foot cord. Power conditioner with at least 500 VA (voltage/ampere) rating. Output wave shape sinusoidal with less than 3 percent harmonic distortion. Common mode noise rejection must exceed 120 dB; transverse noise rejection must exceed 60 dB. Able to regulate input line voltage variations as great as operation. The output must also remain within National Electrical Manufacturers Association (NEMA) voltage specifications for input voltage as low as 65 percent of nominal. Acoustic noise levels must not exceed 45 dBA. Outside Continental United States (OCONUS) usage must comply with European standards.

Appendix III
Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)

31 Jan 96

Y CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
ISSA:				
air	2	3	Occupational Health Clinic - Hearing Conservation	DSN 655-0443 703-805-0443
g	18	60	Audiology Clinic - Hearing Conservation	DSN 239-3320 910-432-4994
n	4	3	Audiology Clinic - Hearing Conservation	DSN 341-3622 315-772-3622
ls	3	3	Occupational Health Clinic - Hearing Conservation	DSN 927-4303 804-878-4303
c	5	9	Audiology Clinic - Hearing Conservation	DSN 464-9238 502-624-9238
	1	1	Occupational Health Clinic - Hearing Conservation	DSN 539-2251 804-765-2251
da	2	5	Audiology Clinic - Hearing Conservation	DSN 923-8013 301-677-8013
t Point	2	0	Audiology Clinic - Hearing Conservation	DSN 688-5959 914-938-5959
	5	1	Audiology Clinic - Hearing Conservation Occupational Health - Hearing Conservation	DSN 662-8609 202-782-8609 DSN 662-3668 202-782-3668
ick	1	0	Occupational Health Clinic - Hearing Conservation	DSN 343-2043 301-619-2043
	2	0	Occupational Health Clinic - Hearing Conservation	DSN 298-2310 410-278-2310
-Edg	1	0	Occupational Health Clinic - Hearing Conservation	DSN 584-3001 410-671-3001
lair	1	0	Occupational Health Clinic - Hearing Conservation	DSN 335-1829 202-475-1829
r	2	0	Occupational Health Clinic - Hearing Conservation	DSN 226-3513 703-696-3513
agon	2	3	Civilian Occupational Health Clinic - Hearing Conservation Anthony DiLorenzo Health Clinic - Hearing Conservation	DSN 227-5639 703-697-5639 DSN 225-7499 703-695-7499
ilton	1	0	Occupational Health Clinic - Hearing Conservation	DSN 232-4417 718-630-4417
erkenny	2	0	Occupational Health Clinic - Hearing Conservation	DSN 570-8600 717-267-8600
smouth	2	2	Occupational Health Clinic - Hearing Conservation	DSN 992-2452 908-532-2452
ninny	1	0	Occupational Health Clinic - Hearing Conservation	DSN 880-4190 201-724-4190
A()	2	1	Occupational Health Clinic - Hearing Conservation	DSN 795-7984 717-894-7984

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Carlisle Bks	1	0	Occupational Health Clinic - Hearing Conservation	DSN 242-3410 717-245-3410
Richmond-Blue Grass	1	0	Occupational Health Clinic - Hearing Conservation	DSN 745-6559 606-623-4043
Latlick	1	0	Occupational Health Clinic - Hearing Conservation	DSN 256-5418 508-651-5418
Vatervliet	1	0	Occupational Health Clinic - Hearing Conservation	DSN 874-4195 618-266-4195
Fort Hill Farms	1	0	Occupational Health Clinic - Hearing Conservation	DSN 229-5171 703-349-5171
Crane AAA	1	1	Occupational Health Clinic - Hearing Conservation	DSN 482-1214 812-854-1214
Monroe	1	0	Occupational Health Clinic - Hearing Conservation	804-727-2430
Forty	1	0	Occupational Health Clinic - Hearing Conservation	804-422-7822
Gunny Point	1	0	Occupational Health Clinic - Hearing Conservation	DSN 488-8320 919-457-8320
P Hill	1	0	Occupational Health Clinic - Hearing Conservation	DSN 934-8216 804-633-8216
SACHPPM	10	12	Bio-Acoustics Division - Hearing Conservation	DSN 584-3797 410-671-3797
Joint, TOAD	1	16	Medical Maintenance - Audiometer Calibration	DSN 795-7601 717-894-7601
IC - Detrick	13	14	TROY Systems	DSN 343-2049 301-619-2049
Development - Detrick	2	0	Directorate of Information Management	DSN 343-2139 301-619-2139
Subtotal:	95	134		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

Y CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
SSA:				
C (Gordon)	2	0	Audiology Clinic - Hearing Conservation	DSN 773-6689 706-787-8128
ing	7	20	Audiology Clinic - Hearing Conservation	DSN 784-4450 706-544-4450
pbell	6	17	Audiology Clinic - Hearing Conservation	DSN 635-8131 602-798-8131
son	5	5	Audiology Clinic - Hearing Conservation	DSN 734-6039 803-751-6039
itone	2	0	Occupational Health Clinic - Hearing Conservation	DSN 746-8831 205-876-8831
ter	3	5	Audiology Clinic - Hearing Conservation	DSN 558-7186 205-255-7186
vert	4	14	Audiology Clinic - Hearing Conservation	DSN 870-6350 912-767-6350
ter AAF	1	2	Ft. Stewart Audiology Clinic - Hearing Conservation	DSN 870-6350 912-767-6350
lston AD	1	0	Occupational Health Clinic - Hearing Conservation	DSN 571-7521 205-235-7222
ly an, PR	1	0	Occupational Health Clinic - Hearing Conservation	DSN 740-3862 809-783-8138
AcPherson	1	0	Occupational Health Clinic - Hearing Conservation	DSN 572-4151 404-752-3426
Subtotal:	33	63		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

Y CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
SC HSSA:				
BAMC	2	10	Audiology Clinic - Hearing Conservation	DSN 429-9336 210-916-9336
Hood	4	18	Audiology Clinic - Hearing Conservation	DSN 566-7204 817-286-7204
Polk	4	8	Audiology Clinic - Hearing Conservation	DSN 863-3276 318-531-3276
Sill	5	13	Audiology Clinic - Hearing Conservation	DSN 866-2235 DSN 866-2235
Chaffee	1	0	Occupational Health Clinic - Hearing Conservation	2826
Corpus Christie AD	1	0	Occupational Health Clinic - Hearing Conservation	DSN 861-3560 512-939-3560
Red River AD	1	0	Occupational Health Clinic - Hearing Conservation	DSN 829-2155 903-334-2155
Pine Bluff	1	0	Occupational Health Clinic - Hearing Conservation	DSN 966-3411 501-543-3411
AMEDD Ctr & Sch	5	2	Audiology/Hearing Conservation Course	DSN 471-6002
Panama	1	4	Audiology Clinic - Hearing Conservation	DSN 282-5237 507-82-5237
Idrus	1	1	Occupational Health Clinic - Hearing Conservation	DSN 449-4498
Subtotal:	26	56		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
HSSA:				
on	8	8	Audiology Clinic - Hearing Conservation	DSN 691-7450 719-526-7450
enworth	2	0	Occupational Health Clinic - Hearing Conservation	DSN 552-5382 913-684-5382
ard Wood	3	13	Occupational Health Clinic - Hearing Conservation	314-596-0039
	4	12	Audiology Clinic - Hearing Conservation	DSN 856-7875 913-239-7875
c Island	1	1	Occupational Health Clinic - Hearing Conservation	DSN 793-0801 309-782-0801
oy	1	0	Occupational Health Clinic - Hearing Conservation	DSN 280-3209 608-388-2414
le	1	0	Occupational Health Clinic - Hearing Conservation	DSN 749-4176 719-549-4176
ouis TS	2	0	Occupational Health Clinic - Hearing Conservation	DSN 693-2500 314-263-2500
le	1	1	Occupational Health Clinic - Hearing Conservation	DSN 790-2572 801-833-2572
le AAP	1	0	Occupational Health Clinic - Hearing Conservation	DSN 956-6495 918-421-2495
way	1	0	Occupational Health Clinic - Hearing Conservation	DSN 789-2027 801-831-2027
k Auto Cmd, Warren	1	0	Occupational Health Clinic - Hearing Conservation	DSN 786-5771 313-574-5771
Subtotal:	26	35		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

ARMY CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
SW HSSA:				
Luachuca	1	0	Occupational Health Clinic - Hearing Conservation	DSN 821-9139 602-533-3279
rwlin	4	2	Occupational Health Clinic - Hearing Conservation	DSN 470-3026 619-386-3202
MBAMC	4	13	Audiology Clinic - Hearing Conservation	DSN 979-2013 915-568-2013
White Sands MR	1	0	Occupational Health Clinic - Hearing Conservation	DSN 258-3134 505-678-3134
Junter-Liggett	1	3	Occupational Health Clinic - Hearing Conservation	DSN 686-2291 408-386-2570
Aed Maint, Tracey	1	16	Medical Maintenance - Audiometer Calibration	DSN 462-9556 209-832-9556
Subtotal:	12	34		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

AY CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
HSSA:				
Wainwright	3	3	Audiology Clinic - Hearing Conservation	DSN 317-353- 5307 907-353-5307
Richardson	1	5	Occupational Health Clinic - Hearing Conservation	DSN 317-863- 4103 907-863-7187
Greeley	1	1	Occupational Health Clinic - Hearing Conservation	DSN 317-873- 4498 907-873-4498
ra AD	1	0	Occupational Health Clinic - Hearing Conservation	DSN 855-4575 916-827-4322
stilla	1	0	Occupational Health Clinic - Hearing Conservation	DSN 790-5215 503-564-5215
lma	1	0	Occupational Health Clinic - Hearing Conservation	DSN 355-8251 509-454-8251
na PG	1	0	Occupational Health Clinic - Hearing Conservation	DSN 899-2208 602-328-2208
M	10	20	Preventive Medicine - Hearing Conservation	DSN 357-4327 206-968-1420
al:	19	29		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

ARMY CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
PAC HSSA:				
Tripler AMC	2	1	Audiology Clinic - Hearing Conservation	808-433-5742
Schofield Bks	8	7	Audiology Clinic - Hearing Conservation	808-655-9891
Johnston Island	1	0	Occupational Health Clinic - Hearing Conservation	808-622-5701
Kwajalein	1	0	Occupational Health Clinic - Hearing Conservation	805-238-7994
Subtotal:	12	8		x3497
ARMY - TOTAL CONUS:	223	359	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

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**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

ARMY NATIONAL GUARD	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
MA ARNG	2	1	Occupational Health Office - Hearing Conservation	DSN 256-5765 508-651-5700 x5729
MD ARNG	2	1	Occupational Health Office - Hearing Conservation	DSN 496-6012 410-576-6012
ME ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 476-4372 207-626-4372
MI ARNG	2	1	Occupational Health Office - Hearing Conservation	DSN 623-0842 517-483-5842
MN ARNG	2	1	Occupational Health Office - Hearing Conservation	DSN 825-4090 612-296-4090
MO ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 555-9943 314-526-9943
MS ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 637-6377 601-873-6377
MT ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 747-3144 406-444-7944
NC ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 582-9253 919-664-6153
ID ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 344-5907 701-224-5907
NE ARNG	1	1	Occupational Health Office - Hearing Conservation	DSN 946-7315 402-473-7315
NH ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 684-9296 603-225-1296
NJ ARNG	1	1	Occupational Health Office - Hearing Conservation	DSN 445-9221 609-530-4785
IM ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 867-9505 505-473-9505
NY ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 830-5267 702-972-2704
RI ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 489-4312 518-786-4312
SD ARNG	2	0	Occupational Health Office - Hearing Conservation	DSN 273-7033 614-889-7033
TX ARNG	2	1	Occupational Health Office - Hearing Conservation	DSN 940-3606 405-425-8606
UT ARNG	2	0	Occupational Health Office - Hearing Conservation	DSN 355-3902 503-378-3902
VA ARNG	2	0	Occupational Health Office - Hearing Conservation	DSN 491-8813 861-865-8813
WY ARNG	1	0	Occupational Health Office - Hearing Conservation	809-824-0284

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

UNIT NATIONAL GUARD	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 557-3150 401-457-4150
ARNG	1	7	Occupational Health Office - Hearing Conservation	DSN 583-4558 803-748-1448
ARNG	2	0	Occupational Health Office - Hearing Conservation	DSN 747-8703 605-399-6703
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 778-3466 615-532-3466
ARNG	2	1	Occupational Health Office - Hearing Conservation	DSN 954-5684 512-465-5684
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 766-3507 801-576-3507
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 953-2286 804-775-9286
ARNG	1	0	Occupational Health Office - Hearing Conservation	809-778-2884
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 636-3336 802-654-0336
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 355-7874 206-581-8874
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 724-9369 608-246-5967
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 366-6471 304-341-6471
ARNG	1	0	Occupational Health Office - Hearing Conservation	DSN 943-5222 307-772-5222
Subtotal:	66	17		
VG TOTAL:	66	17	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

OCONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Landstuhl Region:				
Bad Kreuznach	1	3	9th GEN DISP - Hearing Conservation	DSN 490-5734
			29th MED DET -	DSN 485-6409
			Hearing Conservation	
			HHC 4/12 BAS -	DSN 485-7149
			Hearing Conservation	
			3/12 INF BAS -	DSN 485-6186
			Hearing Conservation	
			HHC 4/29 FA-BAS -	DSN 485-7137
			Hearing Conservation	
Baumholder	5	5	HHB DIVARTY BAS -	DSN 485-6479
			Hearing Conservatin	
Bexheim	1	1	U.S. Army Health Clinic -	
			Hearing Conservation	DSN 334-5722
Heber Kaserne	1	3	913th MED DET -	
			Hearing Conservation	DSN 483-7017
Landstuhl	12	1	Audiology Clinic -	
			Hearing Conservation	DSN 486-8188
Avorno - Italy	2	1	U.S. Army Health Clinic	
			Camp Darby -	
			Hearing Conservation	DSN 633-7840
WV - Brussels	1	1	NATO Health Clinic -	
			Hearing Conservation	DSN 365-9406
HAPE - Belgium	2	1	SHAPE Health Facility -	
			Hearing Conservation	DSN 423-4294
SACHPPM-EUR	1	3	Hearing Conservation Program	DSN 486-8550
			USA MEDDAC -	DSN 634-7553
			Hearing Conservation	
Avicenza - Italy	1	2	22nd ASG - Hearing Conservation	DSN 634-7785
Wackernheim	1	5	HHB 5/3 ADA BAS -	
			Hearing Conservation	DSN 334-4826
Wiesbaden	1	1	U.S. Army Health Clinic -	
			Hearing Conservation	DSN 337-5405
Subtotal:	29	27		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Erzsburg Region:				
Erzsburg	1	3	914th MED DET - Hearing Conservation	DSN 434-4250
Aibling	1	1	Bad Aibling Health Clinic - Hearing Conservation	DSN 441-3841
Leiberg	1	3	188th GEN DISP - Hearing Conservation	DSN 469-8741
Reichstadt	1	4	19th MED DET - Hearing Conservation	DSN 352-7792
Reinwoehr	1	3	547th GEN DISP - Hearing Conservation	DSN 475-6142
Reinfels	2	1	731st GEN DISP - Hearing Conservation	DSN 466-2602
			HHC 1/4 INF BAS - Hearing Conservation	DSN 466-2362
Reinheim	1	3	19th MED DET - Hearing Conservation	DSN 467-4512
Reinbach	1	3	536th GEN DISP - Hearing Conservation	DSN 467-2619
Reinigen	1	1	31st MED DET - Hearing Conservation	DSN 355-8653
Reinweinfurt	2	4	24th MED DET - Hearing Conservation	DSN 354-6665
			C CO 3rd SPT BN BAS - Hearing Conservation	DSN 354-6953
Reinbeck	2	1	12 GEN DISP - Hearing Conservation	DSN 476-2003
			HHC 1/6 INF BDE - Hearing Conservation	DSN 476-2307
Erzsburg	6	3	67th CSH Audiology - Hearing Conservation	DSN 350-3789
			67th CSH PMA - Hearing Conservation	DSN 350-3435
Subtotal:	20	30		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

A Y OCONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Heidelberg Region:				
Babenhausen	2	1	Babenhausen Health Clinic - Hearing Conservation Babenhausen BAS 41st BDE CAS - Hearing Conservation	DSN 348-3797 DSN 348-3551
Buedingen	1	1	Buedingen Health Clinic - Hearing Conservation 1/1 CAV Squadron Aid Sta - Hearing Conservation	DSN 321-4789 DSN 321-4721
Butzbach	1	1	Butzbach Health Clinic - Hearing Conservation	DSN 346-8702
Darmstadt	1	3	Darmstadt Health Clinic - Hearing Conservation	DSN 348-8385
Fliegerhorst	1	1	4th BDE BAS - Hearing Conservation	DSN 322-7413
Friedberg	1	3	Friedberg Health Clinic - Hearing Conservation 2/67 Armor BAS - Hearing Conservation	DSN 324-3204 DSN 324-3585
Hanau	1	5	Hanau Health Clinic - Hearing Conservation	DSN 322-8640
Idberg	1	5	Occupational Health - Hearing Conservation Heidelberg Hospital - Hearing Conservation	DSN 371-2595 DSN 371-2551
Kirchgoens	2	3	3/5 CAV BAS - Hearing Conservation 2/3 FA BAS - Hearing Conservation	DSN 346-7126 DSN 346-8119
Mannheim	1	3	Mannheim Health Clinic - Hearing Conservation	DSN 380-6577
Sandhofen	1	3	Sandhofen Health Clinic - Hearing Conservation	DSN 382-4274
Stuttgart	1	3	Stuttgart Health Clinic - Hearing Conservation	DSN 430-8385
Subtotal:	14	32		
EUROPEAN HSSA TOTAL:	63	89		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

BY OCONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
en	1	1	Occupational Health Clinic - Hearing Conservation	DSN 233-5050 011-81-3117-33- 5050
is	3	3	Audiology Clinic - Hearing Conservation	DSN 737-8287 011-822-7917- 8287
rait	1	1	Occupational Health Clinic - Hearing Conservation	011-965-487- 8822 x5114
AN/KOREA/KUWAIT AL:	5	5		
MY - TOTAL OCONUS:	68	84	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797
MY - GRAND TOTAL:	357	470	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

FORCE CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
USAF Active Duty:				
Altus AFB	1	3	97TH AMDS/SGPFP	DSN 866-5434
Andrews AFB	1	1	89TH AMDS/SGPF	DSN 858-5498
Barksdale AFB	1	1	2ND AMDS/SGPF	DSN 781-6704
Beale AFB	1	1	9TH AMDS/SGPF	DSN 368-4939
Bolling AFB	1	1	11TH MDOS/SGOAFS	x387
Brooks AFB	1	1	70TH AMDS/SGPF	DSN 240-2859
USAF HCDR	1	1	AL/OEMO	DSN 240-2909
USAFSAM	20	0	USAFSAM/AF	DSN 240-2844
Cannon AFB	1	1	27TH AMDS/SGPF	DSN 681-7625
Charleston AFB	1	3	437TH AMDS/SGPE	DSN 673-3965
Columbus AFB	1	1	14TH AMDS/SGPFP	DSN 742-2184
Davis-Monthan AFB	1	1	355TH AMDS/SGPE	DSN 361-2733
Dayton AFB	1	1	436TH AMDS/SGPF	DSN 445-2704
Dyess AFB	1	2	7TH AMDS/SGPFP	DSN 461-5358
Edwards AFB	1	2	95TH AMDS/SGPF	DSN 527-2270
Eglin AFB	1	3	96TH AMDS/SGPFP	DSN 872-2519
Elmendorf AFB	1	0	354TH MDOS/SGOAFP	DSN 317-377- 2213 x275
Ellsworth AFB	1	1	28TH AMDS/SGPFE	DSN 675-3439
Elmendorf AFB	1	2	3RD AMDS/SGPF	DSN 317-552- 5067
Elmendorf AFB	1	1	92ND AMDS/SGPFP	DSN 657-5757
Fort E. Warren AFB	1	1	90TH AMDS/SGPFP	DSN 481-2111
Goodfellow AFB	1	0	17TH MDOS/SGOAFP	DSN 477-3124
Grand Forks AFB	1	0	319TH AMDS/SGPF	DSN 362-5504
Hanscom AFB	1	1	66TH MDOS/SGPF	DSN 478-8086
Hickam AFB	1	1	15TH AMDS/SGPF	DSN 315-448- 6150
Hill AFB (HCC)	1	2	75TH AMDS/SGPMA	DSN 458-1069
* Hill AFB (Flyers)	1	0	75TH AMDS/SGPF	DSN 458-7934
Holloman AFB	1	1	49TH AMDS/SGPFS	DSN 867-3391
Hurlburt Field	1	2	16TH MDG/SGOAFP	DSN 579-4756
Keesler AFB	1	1	81ST AMDS/SGPF	DSN 597-6942
Kelly AFB (HCC)	1	2	76TH MDOS/SGPMA	DSN 945-3206
* Kelly AFB (Flyers)	1	0	76TH MDOS/SGPF	DSN 945-3308
Kirtland AFB	1	1	377TH AMDS/SGPF	DSN 246-3435
Lackland AFB	1	1	59TH MEDW/ISOPO	DSN 554-3638
Langley AFB	1	1	1ST AMDS/SGPFP	DSN 574-6913
Loughlin AFB	1	1	47TH AMDS/SGPS	DSN 732-6349
Little Rock AFB	1	1	314TH AMDS/SGPFP	DSN 731-7283
Luke AFB	1	1	56TH AMDS/SGPF	DSN 896-7525
MacDill AFB	1	1	6TH AMDS/SGPFP	DSN 968-5233
Malstrom AFB	1	1	341 AMDS/SGPFP	DSN 632-3516

Microprocessor Audiometer Sites (CONUS and OCONUS - by Service)

FORCE CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Wright AFB	1	1	42ND AMDS/SGPF	DSN 493-5497
Chord AFB	1	2	62ND MDOS/SGOAFP	DSN 984-3961
Clellan AFB (HCC)	1	2	77TH AMDS/SGPFH	DSN 633-8451
McClellan AFB (Flyers)	1	0	77TH AMDS/SGP	DSN 633-8488
Connell AFB	1	1	22ND AMDS/SGPF	DSN 743-5116
Guire AFB	1	2	305TH AMDS/SGPF	DSN 944-5447
Fort AFB	1	0	5TH AMDS/SGPF	DSN 453-5365
Godby AFB	1	1	347TH AMDS/SGPF	DSN 460-3610
Mountain Home AFB	1	1	366TH AMDS/SGPF	DSN 728-7400
Offutt AFB	1	3	554TH AMDS/SGPE	DSN 348-3348
Offutt AFB	0	0	74TH AMDS/SGPMO-N	DSN 346-7633
Offutt AFB	1	1	55TH AMDS/SGPFP	DSN 271-6568
Offutt AS	0	0	750TH MDS/SGPF	DSN 359-8170
Offutt AFB	1	1	45TH AMDS/SGPF	DSN 854-6505
Offutt AFB	1	1	21ST AMDS/SGPFP	DSN 834-1269
Offutt AFB	1	1	23RD MDOS/SGOAPF	DSN 486-2242
Offutt AFB	1	1	12TH AMDS/SGPFS	DSN 487-3067
Offutt AFB	1	1	64TH AMDS/SGPFS	
Offutt AFB (HCC)	1	0	78TH AMDS/SGPFA	
Offutt AFB (Flyers)	1	0	78TH AMDS/SGPFP	
Offutt AFB	1	1	375TH AMDS/SGPF	
Offutt Johnson AFB	1	1	4TH AMDS/SGPF	
Offutt AFB	1	1	20TH AMDS/SGPFP	
Offutt AFB	1	1	82ND AMDS/SGPF	
Offutt AFB (HCC)	1	4	72ND AMDS/SGPMA	
Offutt (Flyers)	1	0	72ND AMDS/SGPFP	
Offutt AFB	1	1	60TH AMDS/SGPF	
Offutt AFB	1	1	325TH AMDS/SGPFO	
AF Academy	1	3	10TH AMS/SGPF	
Offutt AFB	1	1	71ST MDOS/SGOAFP	
Offutt AFB	1	1	30TH AMDS/SGPF	
Offutt AFB	1	1	509TH AMDS/SGPFP	
Offutt-Patterson AFB (HCC)	1	1	74TH AMDS/SGPMA	
Offutt-Patterson AFB (Flye	1	0	74TH AMDS/SGPF	
FORCE - TOTAL CONUS:	91	82	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

FORCE RESERVE	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
AF RESERVE:				
301st Carswell Field ARB	1	1		
302nd Peterson ARS	1	1		
315th Charleston ARS	1	3		
434th Grissom ARB	1	1		
439th Westover ARB	1	1		
440th Milwaukee ARS	1	1		
482nd Homestead ARB	1	1		
512th Dover ARS	1	1		
701st Carswell Field ARB	1	1		
722nd Roslyn ARS	1	1		
752nd March ARB	1	1		
910th Youngstown APRT ARS	1	1		
911th Pittsburg IAP ARS	1	1		
913th Willow Grove ARS	1	1		
914th Niagara Falls IAP ARS	1	1		
919th Eglin AFB Aux Fld 3 AR	1	1		
928th O'Hare IAP ARS	1	2		
934th Minneapolis ARS	1	1		
AF RESERVE - TOTAL:	18	21	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

Microprocessor Audiometer Sites (CONUS and OCONUS - by Service)

NATIONAL GUARD	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
3:				
- Kulis AGB	1	1		
- Birmingham APT AGS	1	1		
- Dannelly Field AGS	1	1		
- Fort Smith MPT AGS	1	1		
- Little Rock AGS	1	1		
- Sky Harbor IAP AGS	1	1		
- Tucson IAP AGS	1	1		
- Fresno ATM AGS	1	1		
- Channel Islands AGS	1	1		
- March AGA	1	1		
- Buckley AGB	1	1		
- Bradely IAP AGS	1	1		
- Andrews AGS	1	1		
- New Castle JAP AGS	1	1		
- Jacksonville IAP AGS	1	1		
- Dobbins AGA	1	1		
- Savannah IAP AGS	1	1		
- Hickam AGS	1	1		
- Moines IAP AGS	1	1		
- Gateway APT AGS	1	1		
- Lejeune AGB	1	1		
- O'Hare IAP AGS	1	1		
- Greater Peoria APT AGS	1	1		
- Capital APT AGS	1	1		
- Fort Wayne IAP AGS	1	1		
- Hulman Regional APT AG	1	1		
- McConnell AGS	1	1		
- Forbes Field AGS	1	1		
- Standiford Field AGS	1	1		
- Otis AGB	1	1		
- Barnes MPT AGS	1	1		
- Martin APT AGS	1	1		
- Martin APT AGS	1	1		
- Bangor IAP AGS	1	2		
- W K Kellogg APT AGS	1	1		
- Selfridge AGB	1	2		
- Minnesota-St Paul AGS	1	1		
- Duluth AGB	1	1		
- Lambert-St Louis IAP AG	1	1		
- Rosecrans MEM APT AG	1	1		
- Allen C Thompson Field	1	1		
- Key Field AGS	1	1		
- at Falls IAP AGS	1	1		
- lotte-Douglas IAP A	1	1		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

	<u># New Audiometers</u>	<u># Additional Audiometer Boards</u>	<u>Location</u>	<u>Phone DSN/ Commercial</u>
AF - NATIONAL GUARD				
AF - Hector IAP AGS	1	1		
AE - Lincoln MPT AGS	1	1		
AH - Pease AGB	1	1		
AJ - Atlantic City IAP AGS	1	1		
AM - Kirtland AGS	1	1		
AV - Reno Cannon IAP AGS	1	1		
AY - Stewart AGB	1	1		
AY - Francis S Gabreski AGB	1	1		
AY - Schenectady APT AGS	1	1		
AY - Hancock Field AGS	1	1		
AH - Rickenbacker AGB	1	1		
AH - Springfield-Beckley MPT	1	1		
AH - Mansfield Lehm APT AG	1	1		
AH - Toledo Express APT AGS	1	1		
AK - Will Rogers World APT A	1	1		
AK - Tulsa IAP AGS	1	1		
AR - Kingsley Field AGS	1	1		
AR - Portland IAP AGS	1	1		
AA - Willow Grove AGS	1	2		
AA - Greater Pittsburg AGS	1	1		
AA - Harrisburg IAP AGS	1	1		
AR - Puerto Rico IAP AGS	1	1		
AI - Quonset State APT AGS	1	1		
AC - McEntire AGB	1	1		
AD - De Foss Field AGS	1	1		
AN - Nashville APT AGS	1	1		
AN - McGhee-Tyson AGB	1	1		
AN - Memphis IAP AGS	1	1		
AK - Dallas AGS	1	1		
AK - Ellington Field AGS	1	1		
AK - Kelly AGS	1	1		
AT - Salt Lake City IAP AGS	1	1		
AA - Richard E Byrd Field AGS	1	1		
AT - Burlington IAP AGS	1	1		
AA - Fairchild AGS	1	1		
AA - Camp Murray AGS	1	1		
AI - Traux Field AGS	1	1		
AI - General Mitchell IAP AGS	1	1		
AV - Yeager APT AGS	1	1		
AV - East WVA Regional APT	1	1		
AY - Cheyenne APT AGS	1	1		
NG - TOTAL:	85	88	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

FORCE OCONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
F Active Duty:				
ersen AFB	1	0	36TH MDOS/SGPFP	6535
no ABS	1	0	31ST MDG/SGOAFP	DSN 314-632-4065
ard AFB	1	0	24TH MOS/SGOAFP	DSN 313-284-6343
lik AB	1	1	39TH AMDS/SGPFP	DSN 314-676-8632
r AS	1	0	425TH ABS/SGPF	DSN 314-675-4039
ena AB	1	2	18TH AMDS/SGPFP	DSN 315-632-9225
avik NAS	0	0	85TH GP/MDG	DSN 450-3316
san AB	1	0	8TH MDOS/SGOAFP	DSN 315-782-4734
s Field AB	1	0	65TH MDG/SGPF	DSN 535-3474
iv B	1	1	35TH AMDS/SGPFP	DSN 315-226-6130
n	1	1	51ST AMDS/SGPS	DSN 315-784-2515
Croughton	1	0	603RD CS/SGPF	DSN 314-236-8472
Lakenheath AB	1	1	48TH AMDS/SGPFP	DSN 314-226-3111
stein AB	1	1	86TH AMDS/SGPS	DSN 314-480-2217
In-Main AB	1	1	435TH MDOS/SGOF	DSN 314-330-7330
ngdahlem AB	1	1	52ND AMDS/SGPFP	DSN 314-452-6732
ota AB	1	0	374TH AMDS/SGPF	DSN 315-225-7519
FORCE - TOTAL OCONUS	16	9	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797
FORCE - GRAND TOTAL:	210	200	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

NAVY CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Region 1:				
Annapolis MD NMC	1	1	Med Clinic	DSN 295-5722
Annapolis MD NMC	1	7	Med Clinic	DSN 295-5722
Bethesda MD NNMCCEN	1	4	MedCen	DSN 295-5722
Bethesda MD NNMCCEN	1	0	Arlington	DSN 295-5722
Bethesda MD NNMCCEN	1	0	Carderock	DSN 295-5722
Bethesda MD NNMCCEN	1	0	Dahlgren	DSN 295-5722
Bethesda MD NNMCCEN	1	0	IndianHead	DSN 295-5722
Bethesda MD NNMCCEN	1	0	Shipyards	DSN 295-5722
Bethesda MD NNMCCEN	1	0	WhiteOak	DSN 295-5722
Bethesda MD NNMCCEN	1	0	NRL	DSN 295-5722
Bethesda MD NNMCCEN	1	0	Sugar Grove	DSN 295-5722
Bethesda MD NNMCCEN	1	0	NAF	DSN 295-5722
Bethesda MD NNMCCEN	1	0	League Island	DSN 897-6843
Bethesda MD NNMCCEN	1	0	ASO	DSN 897-6843
Bethesda MD NNMCCEN	1	0	Willow Grove	DSN 897-6843
Bethesda MD NNMCCEN	2	0	Lakehurst	DSN 897-6843
Bethesda MD NNMCCEN	2	0	Colts Neck	DSN 897-6843
Bethesda MD NNMCCEN	2	2	Mechanicsburg	DSN 897-6843
Proton CT NH	1	6	NavHosp1	DSN 241-2568
Proton CT NH	1	3	NavHosp2	DSN 241-2568
Proton CT NH	1	3	MOH CAT	DSN 241-2568
Proton CT NH	1	1	??	DSN 241-2568
Proton CT NH	1	1	Ballston Spa	DSN 241-2568
Newport RI NH	1	4	Naval Hosp	DSN 948-2159
Newport RI NH	1	3	MOH CAT	DSN 948-2159
Newport RI NH	1	1	NUWC	DSN 948-2159
Stuxent River MD NH	1	8	Naval Hosp	DSN 295-5722
Stuxent River MD NH	1	1	Naval Hosp	DSN 295-5722
Stuxent River MD NH	1	3	MOH CAT	DSN 295-5722
Portsmouth NH NMC	1	5	Med Clinic	DSN 684-2081
Portsmouth NH NMC	1	3	Brunswick ME	DSN 684-2081
Portsmouth NH NMC	1	1	Winter Harbor	DSN 684-2081
Portsmouth NH NMC	1	1	Culter Machais	DSN 684-2081
Portsmouth NH NMC	1	3	S Weymouth	DSN 684-2081
Subtotal:	37	61		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
gion 2:				
mp Lejuene NC NH	1	9	BLDG. 65-1	DSN 484-5707
mp Lejuene NC NH	2	10	BLDG. 65-2	DSN 484-5707
mp Lejuene NC NH	1	3	CARON	DSN 484-5707
mp Lejuene NC NH	1	6	FR.NCH CRK	DSN 484-5707
mp Lejuene NC NH	1	3	MOHCAT	DSN 484-5707
mp Lejuene NC NH	1	5	NEW RIVER	DSN 484-5707
erry Point NC NH	1	4	NAVHOSPAV	919-466-2481
erry Point NC NH	1	3	OCCHLTH	919-466-2481
erry Point NC NH	1	1	PHYS	919-466-2481
erry Point NC NH	1	1	OCCHLTH	919-466-2481
rtsmouth VA NMCEN	1	5	Lafayette	DSN 564-7599
rtsmouth VA NMCEN	1	5	DESRON 2	DSN 564-7599
rtsmouth VA NMCEN	2	10	Sewells Pt	DSN 564-7599
rtsmouth VA NMCEN	1	3	Oceana	DSN 564-7599
rtsmouth VA NMCEN	3	7	Shipyard	DSN 961-7791
rtsmouth VA NMCEN	1	5	Little Creek	DSN 564-7599
rtsmouth VA NMCEN	1	1	Yorktown	DSN 564-7599
rtsmouth VA NMCEN	1	1	Dam Neck	DSN 564-7599
rtsmouth VA NMCEN	4	12	MOHCAT	DSN 564-7599
antico VA NMC	1	11	Med Clinic	DSN 295-5722
si VA NMC	1	1	Med Clinic	DSN 295-5722
Total:	28	106		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

Navy CONUS.	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Region 3:				
Beaufort SC NH	2	16	MCRD	DSN 832-2528
Beaufort SC NH	1	5	MCAS	DSN 832-2528
Charleston SC NH	1	1	Hospital	803-743-7850
Charleston SC NH	1	3	WPNSTA	803-743-7850
Jacksonville FL NH	1	7	Hospital	DSN 9422841
Jacksonville FL NH	1	5	Branch Clinic	DSN 9422841
Jacksonville FL NH	1	5	Cecil	DSN 9422841
Jacksonville FL NH	1	7	Mayport	DSN 9422841
Jacksonville FL NH	1	3	MOHCAT	DSN 9422841
Jacksonville FL NH	1	4	Kings Bay GA	DSN 9422841
Jacksonville FL NH	1	1	Atlanta GA	DSN 9422841
Jacksonville FL NH	1	1	Albany GA	DSN 9422841
Jacksonville FL NH	1	1	Key West	DSN 9422841
Subtotal:	14	59		

Appendix III

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Microprocessor Audiometer Sites (CONUS and OCONUS - by Service)

Y CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
in 4:				
Orleans LA BMC	1	5	Branch Clinic	DSN 922-5275
ington TN NH	1	6	Branch Clinic	DSN 966-5925
acola FL NH	1	4	Occ Health	DSN 922-5275
acola FL NH	1	1	Corry Station	DSN 922-5275
acola FL NH	1	1	Whiting Field	DSN 922-5275
acola FL NH	1	1	Gulfport MS	DSN 922-5275
acola FL NH	1	1	Meridan MS	DSN 922-5275
acola FL NH	1	1	Panama City	DSN 922-5275
acola FL NH	1	1	PasagoulaMS	DSN 922-5275
acola FL NH	2	6	NAMI	DSN 922-5275
subtotal:	11	27		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

NAVY CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Region 5:				
Great Lakes IL NH	1	7	Hospital	DSN 792-5568
Great Lakes IL NH	3	7	Recruit	DSN 792-5568
Great Lakes IL NH	1	3	MOHCAT	DSN 792-5568
Great Lakes IL NH	1	1	Cleveland	DSN 792-5568
Great Lakes IL NH	1	1	Indianapolis	DSN 792-5568
Great Lakes IL NH	2	4	Crane	DSN 792-5568
Great Lakes IL NH	1	1	StutBay	DSN 792-5568
Subtotal:	10	24		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

Y CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
2n 6:				
us Christi TX NH	1	5	Naval Hosp	512-939-2467
us Christi TX NH	1	3	Dallas	512-939-2467
us Christi TX NH	1	5	Ingleside	512-939-2467
us Christi TX NH	1	3	Kingsville	512-939-2467
Subtotal:	4	16		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

NAVY CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Region 9:				
Camp Pendleton CA NH	1	4	Hospital	DSN 365-1637
Camp Pendleton CA NH	1	3	Area 21	DSN 365-1637
Camp Pendleton CA NH	1	1	Area 31	DSN 365-1637
Camp Pendleton CA NH	1	1	ACU5	DSN 365-1637
Camp Pendleton CA NH	1	1	Area 41	DSN 365-1637
Camp Pendleton CA NH	1	3	Area 43	DSN 365-1637
Camp Pendleton CA NH	1	1	Area 33	DSN 365-1637
Camp Pendleton CA NH	1	1	Area 53	DSN 365-1637
Camp Pendleton CA NH	1	1	Area 52	DSN 365-1637
Camp Pendleton CA NH	1	3	Area 62	DSN 365-1637
Camp Pendleton CA NH	1	3	Area 13	DSN 365-1637
Camp Pendleton CA NH	1	3	Area 62	DSN 365-1637
Camp Pendleton CA NH	1	3	Barstow	DSN 365-1637
Camp Pendleton CA NH	1	3	MOH CAT	DSN 365-1637
Camp Pendleton CA NH	1	3	Yuma	DSN 365-1637
Camp Pendleton CA NH	3	8	Long Beach	DSN 365-1637
Camp Pendleton CA NH	1	1	Seal Beach	DSN 365-1637
Camp Pendleton CA NH	1	3	Tustin	DSN 365-1637
Camp Pendleton CA NH	1	3	El Toro	DSN 365-1637
Camp Pendleton CA NH	1	1	China Lake	DSN 365-1637
Camp Pendleton CA NH	1	1	Corona	DSN 365-1637
Camp Pendleton CA NH	1	3	Port Hueneme	DSN 365-1637
Camp Pendleton CA NH	1	1	Point Mugu	DSN 365-1637
San Diego CA NMCEN	1	11	Hospital	DSN 524-4903
San Diego CA NMCEN	1	3	MOH CAT	DSN 524-4903
San Diego CA NMCEN	1	3	MOH CAT2	DSN 524-4903
San Diego CA NMCEN	1	7	NAVSTA	DSN 524-4903
San Diego CA NMCEN	2	16	MCRD	DSN 524-4903
San Diego CA NMCEN	1	7	NTC	DSN 524-4903
San Diego CA NMCEN	1	7	NAS NORIS	DSN 524-4903
San Diego CA NMCEN	1	7	MIRAMAR	DSN 524-4903
San Diego CA NMCEN	1	7	ELCENTRO	DSN 524-4903
San Diego CA NMCEN	1	3	NAB	DSN 524-4903
San Diego CA NMCEN	1	1	SAN CLE IS	DSN 524-4903
Twenty Nine Palms NH	2	6	Naval Hosp	DSN 365-1637
Subtotal:	39	133		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

NAVY CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Station 10:				
Imeda CA DEVACC	1	3	MOHCAT	
noore CA NH	1	6	Occ.Hlth	209-998-4320
noore CA NH	1	1	Fallon NV	209-998-4320
noore CA NH	1	2	Army/Navy	209-998-4320
noore CA NH	1	1	Concord	209-998-4320
noore CA NH	1	1	Stockton	209-998-4320
Interrey CA	1	1		
rt Hueneme CA	1	1	NMCB 4	
Subtotal:	8	16		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

NAVY CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
Region 11:				
Bremerton WA NH	1	7	PSNS	DSN 439-3286
Bremerton WA NH	1	3	MOHCAT	DSN 439-3286
Bremerton WA NH	1	3	KEYPORT	DSN 439-3286
Bremerton WA NH	1	1	BANGOR	DSN 439-3286
Bremerton WA NH	1	3	EVERETT	DSN 439-3286
Bremerton WA NH	1	3	ADAK	DSN 439-3286
Oak Harbor WA NH	2	8	Naval Hosp	DSN 439-3286
Subtotal:	8	28		

**Microprocessor Audiometer Sites
(CONUS and OCONUS - by Service)**

Y CONUS	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
en 12:				
I Harbor HI NMC	1	7	Barbers PT	808-474-0628
I Harbor HI NMC	1	3	Kaneohe Bay	808-474-0628
I Harbor HI NMC	1	3	Marine Reg	808-474-0628
I Harbor HI NMC	1	3	MOHCAT1	808-474-0628
I Harbor HI NMC	1	9	Shipyard	808-474-0628
I Harbor HI NMC	1	3	MOHCAT2	808-474-0628
Subtotal:	6	28		
ing Con Headquarter				
olk VA NEHC	3	8	NEHC	DSN 864-5577
Subtotal:	3	8		
IV - TOTAL CONUS:	168	506	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

(CONUS and OCONUS - by Service)

	<u># New Audiometers</u>	<u># Additional Audiometer Boards</u>	<u>Location</u>	<u>Phone DSN/ Commercial</u>
NAVY OCONUS				
Abaco Bahama	1	0	??	
Bermuda NAS NMC	1	1	Med Clinic	
Diego Garcia	1	1	NavSupFac	
Geeta Italy	1	1	Health Office	DSN 625-4499
Guam NH	1	4	NavHosp	DSN 339-2189
Guantanamo Bay Cuba	1	4	NavHosp	
Reykjavik Iceland NH	1	4	NavHosp	
Raples Italy NH	1	1	NavHosp	DSN 625-4499
Osaka Japan NH	1	7	NavHosp	DSN 643-7616
Osaka Japan NH	1	5	Evans	DSN 643-7616
Osaka Japan NH	1	3	Futema	DSN 643-7616
Osaka Japan NH	1	5	Hansen	DSN 643-7616
Osaka Japan NH	1	3	Schwab	DSN 643-7616
Roosevelt Rds PR NH	2	2	NavHosp	
Osaka Spain NH	1	1	OccHlth	DSN 727-3342
Osaka Spain NH	1	0	Bldg. 36	DSN 727-3342
Osaka Japan NH	2	10	NavHosp	DSN 243-7136
Osaka Japan NH	1	3	Atsugi	DSN 243-7136
Osaka Japan NH	1	3	Iwakuni	DSN 243-7136
Osaka Japan NH	1	3	Sasebo	DSN 243-7136
Osaka Japan NH	1	0	Fuji	DSN 243-7136
Subtotal:	23	61	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797
NAVY - TOTAL OCONUS:	23	61	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

Microprocessor Audiometer Sites (CONUS and OCONUS - by Service)

V. FLEET	# New Audiometers	# Additional Audiometer Boards	Location	Phone DSN/ Commercial
S Abrahm Lincoln CVN72	1	2	Medical	
S Bataan LHD5	1	0	Medical	
S Belleau Wood LHA3	1	0	Medical	
S Blue Ridge LCC19	1	0	Medical	
S Boxer LHD 4	1	1	Medical	
S Canopus	1	1	Medical	
S Carl Vinson CVN 70	1	1	Medical	
NS Comfort TAH 20	1	1	Medical	
S Constellation CV 64	1	1	Medical	
S Coronado AGF 11	1	1	Medical	
S Dwight Eisenhower CV69	1	1	Medical	
S Emory S Land AS39	1	1	Medical	
S Enterprise CVN65	1	1	Medical	
S Essex LHD2	1	0	Medical	
S Frank Cabot AS40	1	1	Medical	
S George Washington CVN73	1	1	Medical	
S Guam LPH9	1	1	Medical	
S Inchon LPH 12	1	1	Medical	
S Independence CV 62	1	1	Medical	
S John F Kennedy CV67	1	1	Medical	
S John C Stennis CVN74	1	1	Medical	
S Kearsarge LHD3	1	1	Medical	
S Liberty Hawk CV 63	1	1	Medical	
S Lesalle AGF3	1	0	Medical	
S McKee AS 41	1	0	Medical	
NS Mercy TAH19	1	1	Medical	
S Mount Whitney LCC20	1	1	Medical	
S Nassau LHA4	1	1	Medical	
S New Orleans LPH 11	1	1	Medical	
S Nimitz CVN 68	1	1	Medical	
S Peleliu LHA 5	1	1	Medical	
S Saipan LHA2	1	0	Medical	
S Simon Lake AS 33	1	1	Medical	
S Tarawa LHA1	1	0	Medical	
S Theodore Roosevelt CVN71	1	2	Medical	
S United States CVN75	1	1	Medical	
S Waspl LHD 1	1	1	Medical	
S ... CVN76	1	1	Medical	
Subtotal:	38	32		
VY - TOTAL FLEET:	38	32	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797
V - GRAND TOTAL:	229	599	POC: Hearing Conservation Program USACHPPM	DSN 584-3797 410-671-3797

(CONUS and OCONUS - by Service)

<u>HARDWARE SUMMARY:</u>	<u># New Audiometers</u>	<u># Additional Audiometer Boards</u>	<u>Location</u>	<u>Phone DSN/ Commercial</u>
ARMY -				
CONUS TOTAL	223	359		
ARNG TOTAL	66	17		
OCONUS TOTAL	68	84		
ARMY GRAND TOTAL:	357	470	POC: Hearing Conservation Program USACHPPM	410-671-3797 DSN 584-3797
AIR FORCE -				
CONUS TOTAL	91	82		
AF RESERVE TOTAL	18	21		
ANG TOTAL	85	88		
OCONUS TOTAL	16	9		
AIR FORCE GRAND TOTAL:	210	200	POC: Hearing Conservation Program USACHPPM	410-671-3797 DSN 584-3797
NAVY -				
CONUS TOTAL	168	506		
OCONUS TOTAL	23	61		
FLEET TOTAL	38	32		
NAVY GRAND TOTAL:	229	599	POC: Hearing Conservation Program USACHPPM	410-671-3797 DSN 584-3797
ALL SERVICES -				
CONUS TOTAL	482	947		
ARNG TOTAL	66	17		
AF RESERVE TOTAL	18	21		
ANG TOTAL	85	88		
OCONUS TOTAL	107	164		
FLEET TOTAL	38	32		
GRAND TOTAL:	786	1269	POC: Hearing Conservation Program USACHPPM	410-671-3797 DSN 584-3797

Appendix IV
Fault Codes and Instructions for Microprocessor Audiometry

Error 1: No response at 1000 Hz.

Instructions: "You are not pushing the handswitch when you hear the tone. I will restart the test, remember to push and release the handswitch as soon as you hear the tone."

Error 2: No validation of 1000 Hz.

Instructions: "Press and release the handswitch button as soon as you hear a tone, even if the tone is very soft."

Error 3: Failed 1000 retest.

Instructions:

Single Test

(1st time, 1st ear) Start the test over after instructing the listener to "Press and release the handswitch button as soon as you hear a tone, even if the tone is very soft."

(1st time, 2nd ear) "Press and release the handswitch button as soon as you hear a tone, even if the tone is very soft."

(2nd time, 2nd ear) Start the test over after instructing the listener to "Press and release the handswitch button as soon as you hear a tone, even if the tone is very soft."

Group Test

(1st time, 1st ear) "Sit quietly and I will retest you when the group finishes." Start the test over after instructing the listener to "Press and release the handswitch button as soon as you hear a tone, even if the tone is very soft."

(2nd time, 2nd ear) "Sit quietly and I will retest you when the group finishes." Start the test over after instructing the listener to "Press and release the handswitch button as soon as you hear a tone, even if the tone is very soft."

Error 4: No release of handswitch button.

Instructions: "You are not releasing the handswitch quickly enough. Remember to press and release the handswitch quickly, as soon as you hear the tone."

Error 5: Responding when no tone present.

Instructions: "You are pushing the handswitch when no tone is present. Be sure you hear the tone and press and release your handswitch quickly."

Error 6: No validation on one or two frequencies.

Procedure: Switch to manual mode and administer a manual test at the missed frequencies.

Error 7: Failed to validate at three frequencies.

Instructions:

Individual

Reinstruct the individual on the entire test procedure. Press RESET then press START. You will have to reassign the individual to a station.

Group

"Sit quietly and I will retest you when the group finishes."
Reinstruct the individual on the entire test procedure. Press RESET then press START. You will have to reassign the individual to a station.

Appendix V
Microprocessor Audiometer Delivery Addresses - CONUS

Prioritization Schedules and Area Shipping Points will be provided, by each service, following the award of the contract.

The number of microprocessor audiometers and additional audiometer boards, for each installation, will be specified with the shipping schedules.

Microprocessor Audiometer Delivery Addresses - OCONUS

Prioritization Schedules and Area Shipping Points will be provided, by each service, following the award of the contract.

The number of microprocessor audiometers and additional audiometer boards, for each installation, will be specified with the shipping schedules.

AUDIOMETRY

IS REASON FOR CONDUCTING AUDITGRAM

8. AUDIOMETRIC DATA	LEFT	RIGHT
---------------------	------	-------

18. MEETS REFERRAL CRITERIA	19. MILITARY TIME OF DAY (24-hour)	20. HOURS SINCE LAST NOISE EXPOSURE	21. EAR, NOSE, AND THROAT PROBLEM
-----------------------------	---------------------------------------	--	-----------------------------------

12. EXAMINER _____

23. AUDIOMETER	24. LAST ELECTROACOUSTIC CALIBRATION DATE
----------------	---

24. PERSONAL HEARING PROTECTION

15. REMARKS (Exposure date)

DD FORM 2215, 950221 DRAFT PREVIOUS EDITIONS ARE OBSOLETE. Class and using Perform Pro. WMS/DO

HEARING CONSERVATION DATA

(This form is subject to the Privacy Act of 1974 - use Blanket PAS - DD Form 2006)

1. ZIP CODE/AFOT/PO/PAS	
2. DOD COMPONENT A - ARMY N - NAVY P - AIR FORCE M - MARINE CORPS 1 - OTHER DOD ACTIVITY	
3. SERVICE COMPONENT R - REGULAR V - RESERVE S - NATIONAL GUARD 1 - OTHER	
4. SOCIAL SECURITY NUMBER	
5. NAME (Last, First, Middle Initial)	
6. DATE OF BIRTH Y Y M M D D	
7. SEX M - MALE F - FEMALE	
8. PAY GRADE CIVILIAN	
10. SERVICE DUTY OCCUPATION CODE	
11. MAILING ADDRESS OF ASSIGNMENT	
12. LOCATION - PLACE OF WORK	
13. MAJOR COMMAND	
14. DUTY TELEPHONE (Include area code)	
15. AUDIOMETRY a. PURPOSE 1 - 90 DAY 2 - ANNUAL 3 - TERMINATION 4 - OTHER	
AUDIOMETRIC DATA RE: ANSI S3.6 - 1989	
b. CURRENT AUDIOGRAM DATE Y Y M M D D	
c. REFERENCE AUDIOGRAM DATE Y Y M M D D	
d. SIGNIFICANT THRESHOLD SHIFT (STS) 1 - NO 2 - YES	
e. THRESHOLD SHIFT	
f. REMARKS (Exposure data)	
g. TYPE OF PERSONAL HEARING PROTECTION USED 1 - SINGLE FLANGE (N81R) 2 - TRIPLE FLANGE 3 - MAND FORMED EARPLUGS 4 - EAR CANAL CAPS 5 - NOISE MUFFS 6 - OTHER	

NEEDS DD 67

a. EXAMINER NAME (Last, First, Middle Initial)		b. TRAINING CERTIFICATE NO.		c. SERVICE DUTY OCCUPATION CODE		d. OFFICE SYMBOL	
1. AUDIOMETER TYPE 1 - MANUAL 2 - SELF-RECORDING (Automatic) 3 - MICROPROCESSOR		m. MODEL		n. MANUFACTURER		o. SERIAL NUMBER	
p. LAST ELECTROACUSTIC CALIBRATION DATE Y Y M M D D		q. FOLLOWUP NO. 1		r. MINIMUM 15 HOURS NOISE FREE		s. CURRENT AUDIOGRAM (Item 15 b.)	
AUDIOMETRIC DATA RE: ANSI S3.6 - 1989		LEFT		RIGHT			
b. CURRENT AUDIOGRAM DATE Y Y M M D D		c. REFERENCE AUDIOGRAM DATE Y Y M M D D		d. SIGNIFICANT THRESHOLD SHIFT (STS) 1 - NO 2 - YES		e. THRESHOLD SHIFT	
f. EXAMINER NAME (Last, First, Middle Initial)		g. TRAINING CERTIFICATE NO.		h. SERVICE DUTY OCCUPATION CODE		i. OFFICE SYMBOL	
1. AUDIOMETER TYPE 1 - MANUAL 2 - SELF-RECORDING (Automatic) 3 - MICROPROCESSOR		j. MODEL		k. MANUFACTURER		l. SERIAL NUMBER	
m. LAST ELECTROACUSTIC CALIBRATION DATE Y Y M M D D		n. FOLLOWUP NO. 2		o. MINIMUM 15 HOURS NOISE FREE SINCE		p. CURRENT AUDIOGRAM (Item 15 b.)	
AUDIOMETRIC DATA RE: ANSI S3.6 - 1989		LEFT		RIGHT			
b. CURRENT AUDIOGRAM DATE Y Y M M D D		c. REFERENCE AUDIOGRAM DATE Y Y M M D D		d. SIGNIFICANT THRESHOLD SHIFT (STS) 1 - NO 2 - YES		e. THRESHOLD SHIFT	
f. EXAMINER NAME (Last, First, Middle Initial)		g. TRAINING CERTIFICATE NO.		h. SERVICE DUTY OCCUPATION CODE		i. OFFICE SYMBOL	
1. AUDIOMETER TYPE 1 - MANUAL 2 - SELF-RECORDING (Automatic) 3 - MICROPROCESSOR		j. MODEL		k. MANUFACTURER		l. SERIAL NUMBER	
m. LAST ELECTROACUSTIC CALIBRATION DATE Y Y M M D D		n. FOLLOWUP NO. 3		o. MINIMUM 15 HOURS NOISE FREE SINCE		p. CURRENT AUDIOGRAM (Item 15 b.)	
AUDIOMETRIC DATA RE: ANSI S3.6 - 1989		LEFT		RIGHT			
b. CURRENT AUDIOGRAM DATE Y Y M M D D		c. REFERENCE AUDIOGRAM DATE Y Y M M D D		d. SIGNIFICANT THRESHOLD SHIFT (STS) 1 - NO 2 - YES		e. THRESHOLD SHIFT	

ATTACHMENT 2

~~(This form is subject to the Privacy Act of 1974 - Use Blanket PADS - DD Form 2005)~~

К-Т-А-С-А-И-С-Т.

ATTACHMENT 4

SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLAN GUIDE

The following guide was developed as a checklist to be used by contractors in the preparation of a small business and small disadvantaged business subcontracting plan in accordance with the requirements of Public Law 95-507 and the requirements of this solicitation. The guide addresses six mandatory elements of a subcontracting plan as set forth in FAR clause 52.219-9(d). It is intended as a tool to assist contractors in the development of an acceptable subcontracting plan and to facilitate the review by the Contracting Officer and the Small Business Administration Procurement Center Representative.

SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING PLAN GUIDE
(CONTINUED)

DATE:

CONTRACTOR:

ADDRESS:

FILL IN APPLICABLE SECTION:

Company-wide or Division-wide Commercial Product Annual Plan

Company's or Division's Fiscal Year

From:

Month/Year

To:

Month/Year

Total Estimated FY Dollar Value: \$

OR

Individual Contract Plan

Total Contract Dollar Value: \$

SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING PLAN GUIDE
(CONTINUED)

FAR Clause 52.219-9 - The offeror's subcontracting plan shall include, at a minimum, the following:

1. Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business concerns and small disadvantaged business as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

2. The suggested format for percentage and dollar goal follows:

	DOLLARS	PERCENT
Total to be subcontracted:	\$	100%
a. To large business	\$	%
b. To small business	\$	%
1. To non-disadvantaged	\$	%
2. To disadvantaged	\$	%

3. A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to small business concerns and small disadvantaged business concerns. (NOTE: Identify all supplies and services to be subcontracted. Further identify those supplies and services to be subcontracted to small business by one asterisk (*) and small disadvantaged business by two asterisks (**).

4. A description of the method used to develop the subcontracting goals in Item 2 above.

5. A description of the method used to identify potential sources for solicitation purposes (e.g., existing company sources lists, the Procurement Automated Source System (PASS) of the Small Business Administration, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small and small disadvantaged business concerns trade associations.

6. A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with small business concerns and small disadvantaged business concerns.

SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING PLAN GUIDE
(CONTINUED)

7. The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

8. A description of the efforts the offeror will make to assure that small business concerns and small disadvantaged business concerns have an equitable opportunity to compete for subcontracts. (This element shall include, but shall not be limited to, the following:) In order to effectively implement this plan to the extent consistent with efficient contract performance, the contractor shall perform the following functions:

a. Assist small business and small disadvantaged business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the contractor's list of the potential small business and small disadvantaged subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

b. Provide adequate and timely consideration of the potentialities small business and small disadvantaged business concerns in all "make or buy" decisions.

c. Counsel and discuss subcontracting opportunities with representatives of small and disadvantaged business firms.

9. Assurances that the offeror (i) will include the clause in the contract entitled "Utilization of Small Business Concerns and Small Disadvantaged Business Concerns" in all subcontracts that offer further subcontracting opportunities, and (ii) will require all subcontractors (except small business concerns) who receive subcontracts in excess of \$500,000.00 [\$1,000,000.00 for construction of any public facility]), to adopt a plan similar to the plan agreed by the offeror.

10. Assurances that the offeror will (i) cooperate in any studies or surveys as may be requested; (ii) submit periodic reports in order to allow the Government to determine the extent of compliance by the offeror with the subcontracting plan; (iii) submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with the instructions on the forms, and (iv) ensure that its subcontractors agree to submit Standard Form 294 and 295.

SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING PLAN GUIDE
(CONTINUED)

11. A recitation of the types of records the offeror will maintain to demonstrate procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of its efforts to locate small and small disadvantaged business concerns and award subcontracts to them. The record shall include at least the following (on a plan-wide or company-wide basis, unless otherwise indicated):

a. Source lists, guides, and other data that identify small and small disadvantaged business concerns.

b. Organizations contacted in an attempt to locate sources that are small or small disadvantaged business concerns.

c. Records on each subcontract solicitation resulting in an award of more than \$100,000.00, indicating (A) whether small business concerns were solicited and if not, why not; (B) whether small disadvantaged business concerns were solicited and if not, why not; and (C) if applicable, the reason award was not made to a small business or small disadvantaged business concern.

d. Records of any outreach efforts to contact (A) trade associations; (B) business development organizations; and (C) conferences and trade fairs to locate small and small disadvantaged business sources.

e. Records of internal guidance and encouragement provided to buyers through (A) workshops, seminars, training, etc. and (B) monitoring performances to evaluate compliance with the program's requirements.

f. On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having company or division-wide annual plans need not comply with this requirement.

12. SUPPLEMENTAL INFORMATION

Section 1207 of Public Law 991-661, Contract Goal for Minorities, supplements FAR Clause 52.219-9. Offerors are required to:

a. Identify efforts to provide technical assistance to SDB's.

SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING PLAN GUIDE
(CONTINUED)

b. Include a statement that Historically Black Colleges and Universities (HBCU's) and other Minority Institutions (MI's) will be considered when developing SDB goals, when applicable.

SIGNATURE: * _____

TYPED NAME: _____

DATE: _____

(EXECUTIVE OF COMPANY)

TITLE: _____

COMPANY: _____

Plan Accepted By: _____

DATE: _____

(CONTRACTING OFFICER)

AGENCY: _____

The individual signing the plan shall be an Executive of the Company and not the designated Plan Administrator.

(End of Guide)

APPENDIX D

Reproduction of Question (ff) and Answer in Amendment 2
to original Solicitation DADA 15-96-R-0031

ff. QUESTION: The use of voice communications chip option requires more detail. Will the voice chip reside within the audiometer or within the PC itself? Will these instructions be included as part of the overall test time criteria? (Section 4.2.2.5 refers).

ANSWER: The voice output capability will reside within the PC itself, triggered by the error code which is obtained during testing. Delivery of these instructions is NOT included as part of the overall test time criteria.